

<b>SOLICITATION, OFFER, AND AWARD</b> <i>(Construction, Alteration, or Repair)</i>		1. SOLICITATION NO. W91236-04-B-0009	2. TYPE OF SOLICITATION <input checked="checked" type="checkbox"/> SEALED BID (IFB) <input type="checkbox"/> NEGOTIATED (RFP)	3. DATE ISSUED 10-Feb-2004	PAGE OF PAGES 1 OF 144
<b>IMPORTANT - The "offer" section on the reverse must be fully completed by offeror.</b>					
4. CONTRACT NO.		5. REQUISITION/PURCHASE REQUEST NO. W26GLG-4014-7937		6. PROJECT NO.	
7. ISSUED BY USA ENGINEER DISTRICT, NORFOLK CONTRACTING OFFICE 803 FRONT STREET NORFOLK VA 23510-1096  TEL: 757-441-7158      FAX: 757-441-7183		8. ADDRESS OFFER TO <i>(If Other Than Item 7)</i> CODE <div style="text-align: center; font-weight: bold; padding: 10px;">See Item 7</div> TEL:      FAX:			
9. FOR INFORMATION CALL:	A. NAME CHERYL B JONES		B. TELEPHONE NO. <i>(Include area code) (NO COLLECT CALLS)</i> 757-441-7242		
SOLICITATION					
<b>NOTE: In sealed bid solicitations "offer" and "offeror" mean "bid" and "bidder".</b>					
10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS <i>(Title, identifying no., date):</i>  MAINTENANCE DREDGING THIMBLE SHOAL CHANNEL, CHESAPEAKE BAY, VIRGINIA  The project consists of maintenance dredging the Thimble Shoal Channel to a depth of 51 feet MLLW with 1 foot of allowable overdepth. The Contractor shall perform the work by hopper dredge method and place the dredged material into the Government-furnished Dam Neck Dredged Material Management Area. The work involves dredging approximately 283,100 cubic yards of material including allowable overdepth dredging and estimated accretion to April 2004.  THIS ACQUISITION IS 100% SET-ASIDE FOR SMALL BUSINESS. NAICS CODE: 237990 SIC: 1629					
11. The Contractor shall begin performance within <u>15</u> calendar days and complete it within <u>60</u> calendar days after receiving <input type="checkbox"/> award, <input checked="checked" type="checkbox"/> notice to proceed. This performance period is <input type="checkbox"/> mandatory, <input type="checkbox"/> negotiable. <i>(See _____.)</i>					
12 A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? <i>(If "YES," indicate within how many calendar days after award in Item 12B.)</i> <input checked="checked" type="checkbox"/> YES <input type="checkbox"/> NO				12B. CALENDAR DAYS	
13. ADDITIONAL SOLICITATION REQUIREMENTS:  A. Sealed offers in original and <u>1</u> copies to perform the work required are due at the place specified in Item 8 by <u>02:00 PM</u> <i>(hour)</i> local time <u>11 Mar 2004</u> <i>(date)</i> . If this is a sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.  B. An offer guarantee <input checked="checked" type="checkbox"/> is, <input type="checkbox"/> is not required.  C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated in the solicitation in full text or by reference.  D. Offers providing less than _____ calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.					

**SOLICITATION, OFFER, AND AWARD (Continued)***(Construction, Alteration, or Repair)***OFFER (Must be fully completed by offeror)**

14. NAME AND ADDRESS OF OFFEROR (Include ZIP Code)		15. TELEPHONE NO. (Include area code)
		16. REMITTANCE ADDRESS (Include only if different than Item 14)  <b>See Item 14</b>
CODE	FACILITY CODE	

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation, if this offer is accepted by the Government in writing within \_\_\_\_\_ calendar days after the date offers are due. (Insert any number equal to or greater than the minimum requirements stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)

AMOUNTS	SEE SCHEDULE OF PRICES
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18. The offeror agrees to furnish any required performance and payment bonds.

**19. ACKNOWLEDGMENT OF AMENDMENTS***(The offeror acknowledges receipt of amendments to the solicitation -- give number and date of each)*

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER (Type or print)	20B. SIGNATURE	20C. OFFER DATE
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**AWARD (To be completed by Government)**

21. ITEMS ACCEPTED:
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22. AMOUNT	23. ACCOUNTING AND APPROPRIATION DATA
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24. SUBMIT INVOICES TO ADDRESS SHOWN IN (4 copies unless otherwise specified)	ITEM	25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO <input type="checkbox"/> 10 U.S.C. 2304(c) <input type="checkbox"/> 41 U.S.C. 253(c)
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26. ADMINISTERED BY CODE	27. PAYMENT WILL BE MADE BY: CODE
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**CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE**

<input type="checkbox"/> 28. NEGOTIATED AGREEMENT (Contractor is required to sign this document and return _____ copies to issuing office.) Contractor agrees to furnish and deliver all items or perform all work, requisitions identified on this form and any continuation sheets for the consideration stated in this contract. The rights and obligations of the parties to this contract shall be governed by (a) this contract award, (b) the solicitation, and (c) the clauses, representations, certifications, and specifications or incorporated by reference in or attached to this contract.	<input type="checkbox"/> 29. AWARD (Contractor is not required to sign this document.) Your offer on this solicitation, is hereby accepted as to the items listed. This award commutes the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual document is necessary.
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30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN (Type or print)		31A. NAME OF CONTRACTING OFFICER (Type or print)	
30B. SIGNATURE	30C. DATE	TEL: EMAIL:	
		31B. UNITED STATES OF AMERICA BY	31C. AWARD DATE



## Section 00010 - Solicitation Contract Form

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0001		1	Lump Sum	LS	
	BASE BID ITEMS				
	FFP				
	Mobilization and Demobilization				
	PURCHASE REQUEST NUMBER: W26GLG-4014-7937				

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NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0002		238,100	Cubic Yard	\$_____	
	FFP				
	Maintenance Dredging Thimble Shoal Channel to a depth of 51 feet MLLW with one foot of allowable overdepth, complete, including all associated work as indicated and specified.				
	THIS LINE ITEM IS ESTIMATED QUANTITY.				

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NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0003		1	Lump Sum	\$_____	
	OPTIONAL BID ITEMS				
	FFP				
	Mobilization and Demobilization for Sea Turtle Trawling				

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NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0004		5	Days	\$_____	
	FFP				
	Period of required sea turtle trawling and relocation of sea turtles, complete, including all direct and indirect labor and other associated work as indicated and specified.				

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NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0005		1	Day	\$_____	
	FFP				
	Subsequent period of require sea turtle trawling and relocation of sea turtles, complete, including all direct and indirect labor and other associated work as indicated and specified.				

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NET AMT

FOB: Destination

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT
0006		1	Day	\$_____	

FFP

Government directed trawler standby time

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NET AMT

FOB: Destination

## Section 00100 - Bidding Schedule/Instructions to Bidders

## CLAUSES INCORPORATED BY FULL TEXT

## 52.214-3 AMENDMENTS TO INVITATIONS FOR BIDS (DEC 1989)

- (a) If this solicitation is amended, then all terms and conditions which are not modified remain unchanged.
- (b) Bidders shall acknowledge receipt of any amendment to this solicitation (1) by signing and returning the amendment, (2) by identifying the amendment number and date in the space provided for this purpose on the form for submitting a bid, (3) by letter or telegram, or (4) by facsimile, if facsimile bids are authorized in the solicitation. The Government must receive the acknowledgment by the time and at the place specified for receipt of bids.

(End of provision)

## 52.214-4 FALSE STATEMENTS IN BIDS (APR 1984)

Bidders must provide full, accurate, and complete information as required by this solicitation and its attachments. The penalty for making false statements in bids is prescribed in 18 U.S.C. 1001.

(End of provision)

## 52.214-5 SUBMISSION OF BIDS (MAR 1997)

- (a) Bids and bid modifications shall be submitted in sealed envelopes or packages (unless submitted by electronic means) (1) addressed to the office specified in the solicitation, and (2) showing the time and date specified for receipt, the solicitation number, and the name and address of the bidder.
- (b) Bidders using commercial carrier services shall ensure that the bid is addressed and marked on the outermost envelope or wrapper as prescribed in subparagraphs (a)(1) and (2) of this provision when delivered to the office specified in the solicitation.
- (c) Telegraphic bids will not be considered unless authorized by the solicitation; however, bids may be modified or withdrawn by written or telegraphic notice.
- (d) Facsimile bids, modifications, or withdrawals, will not be considered unless authorized by the solicitation.
- (e) Bids submitted by electronic commerce shall be considered only if the electronic commerce method was specifically stipulated or permitted by the solicitation.

(End of provision)

## 52.214-6 EXPLANATION TO PROSPECTIVE BIDDERS (APR 1984)

Any prospective bidder desiring an explanation or interpretation of the solicitation, drawings, specifications, etc., must request it in writing soon enough to allow a reply to reach all prospective bidders before the submission of their bids. Oral explanations or instructions given before the award of a contract will not be binding. Any information given a prospective bidder concerning a solicitation will be furnished promptly to all other prospective bidders as an

amendment to the solicitation, if that information is necessary in submitting bids or if the lack of it would be prejudicial to other prospective bidders.

(End of provision)

#### 52.214-7 LATE SUBMISSIONS, MODIFICATIONS, AND WITHDRAWALS OF BIDS (NOV 1999)

(a) Bidders are responsible for submitting bids, and any modifications or withdrawals, so as to reach the Government office designated in the invitation for bids (IFB) by the time specified in the IFB. If no time is specified in the IFB, the time for receipt is 4:30 p.m., local time, for the designated Government office on the date that bids are due.

(b)(1) Any bid, modification, or withdrawal received at the Government office designated in the IFB after the exact time specified for receipt of bids is "late" and will not be considered unless it is received before award is made, the Contracting Officer determines that accepting the late bid would not unduly delay the acquisition; and--

(i) If it was transmitted through an electronic commerce method authorized by the IFB, it was received at the initial point of entry to the Government infrastructure not later than 5:00 p.m. one working day prior to the date specified for receipt of bids; or

(ii) There is acceptable evidence to establish that it was received at the Government installation designated for receipt of bids and was under the Government's control prior to the time set for receipt of bids.

(2) However, a late modification of an otherwise successful bid that makes its terms more favorable to the Government, will be considered at any time it is received and may be accepted.

(c) Acceptable evidence to establish the time of receipt at the Government installation includes the time/date stamp of that installation on the bid wrapper, other documentary evidence of receipt maintained by the installation, or oral testimony or statements of Government personnel.

(d) If an emergency or unanticipated event interrupts normal Government processes so that bids cannot be received at the Government office designated for receipt of bids by the exact time specified in the IFB and urgent Government requirements preclude amendment of the IFB, the time specified for receipt of bids will be deemed to be extended to the same time of day specified in the solicitation on the first work day on which normal Government processes resume.

(e) Bids may be withdrawn by written notice received at any time before the exact time set for receipt of bids. If the IFB authorizes facsimile bids, bids may be withdrawn via facsimile received at any time before the exact time set for receipt of bids, subject to the conditions specified in the provision at 52.214-31, Facsimile Bids. A bid may be withdrawn in person by a bidder or its authorized representative if, before the exact time set for receipt of bids, the identity of the person requesting withdrawal is established and the person signs a receipt for the bid.

(End of provision)

#### 52.214-18 PREPARATION OF BIDS--CONSTRUCTION (APR 1984)

(a) Bids must be (1) submitted on the forms furnished by the Government or on copies of those forms, and (2) manually signed. The person signing a bid must initial each erasure or change appearing on any bid form.

(b) The bid form may require bidders to submit bid prices for one or more items on various bases, including--

- (1) Lump sum bidding;
  - (2) Alternate prices;
  - (3) Units of construction; or
  - (4) Any combination of subparagraphs (1) through (3) above.
- (c) If the solicitation requires bidding on all items, failure to do so will disqualify the bid. If bidding on all items is not required, bidders should insert the words "no bid" in the space provided for any item on which no price is submitted.
- (d) Alternate bids will not be considered unless this solicitation authorizes their submission.
- (End of provision)

#### 52.214-19 CONTRACT AWARD--SEALED BIDDING--CONSTRUCTION (AUG 1996)

- (a) The Government will evaluate bids in response to this solicitation without discussions and will award a contract to the responsible bidder whose bid, conforming to the solicitation, will be most advantageous to the Government, considering only price and the price-related factors specified elsewhere in the solicitation.
  - (b) The Government may reject any or all bids, and waive informalities or minor irregularities in bids received.
  - (c) The Government may accept any item or combination of items, unless doing so is precluded by a restrictive limitation in the solicitation or the bid.
  - (d) The Government may reject a bid as nonresponsive if the prices bid are materially unbalanced between line items or subline items. A bid is materially unbalanced when it is based on prices significantly less than cost for some work and prices which are significantly overstated in relation to cost for other work, and if there is a reasonable doubt that the bid will result in the lowest overall cost to the Government even though it may be the low evaluated bid, or if it is so unbalanced as to be tantamount to allowing an advance payment.
- (End of provision)

#### 52.216-1 TYPE OF CONTRACT (APR 1984)

The Government contemplates award of a firm fixed price contract resulting from this solicitation.

(End of clause)

#### 52.222-23 NOTICE OF REQUIREMENT FOR AFFIRMATIVE ACTION TO ENSURE EQUAL EMPLOYMENT OPPORTUNITY FOR CONSTRUCTION (FEB 1999)

- (a) The offeror's attention is called to the Equal Opportunity clause and the Affirmative Action Compliance Requirements for Construction clause of this solicitation.
- (b) The goals for minority and female participation, expressed in percentage terms for the Contractor's aggregate

workforce in each trade on all construction work in the covered area, are as follows:

Goals for minority participation for each trade	Goals for female participation for each trade
26.6	6.9

These goals are applicable to all the Contractor's construction work performed in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, the Contractor shall apply the goals established for the geographical area where the work is actually performed. Goals are published periodically in the Federal Register in notice form, and these notices may be obtained from any Office of Federal Contract Compliance Programs office.

(c) The Contractor's compliance with Executive Order 11246, as amended, and the regulations in 41 CFR 60-4 shall be based on (1) its implementation of the Equal Opportunity clause, (2) specific affirmative action obligations required by the clause entitled "Affirmative Action Compliance Requirements for Construction," and (3) its efforts to meet the goals. The hours of minority and female employment and training must be substantially uniform throughout the length of the contract, and in each trade. The Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor, or from project to project, for the sole purpose of meeting the Contractor's goals shall be a violation of the contract, Executive Order 11246, as amended, and the regulations in 41 CFR 60-4. Compliance with the goals will be measured against the total work hours performed.

(d) The Contractor shall provide written notification to the Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, within 10 working days following award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the --

- (1) Name, address, and telephone number of the subcontractor;
- (2) Employer's identification number of the subcontractor;
- (3) Estimated dollar amount of the subcontract;
- (4) Estimated starting and completion dates of the subcontract; and
- (5) Geographical area in which the subcontract is to be performed.

(e) As used in this Notice, and in any contract resulting from this solicitation, the "covered area" is Norfolk, VA

(End of provision)

#### 52.225-12 NOTICE OF BUY AMERICAN ACT REQUIREMENT-- CONSTRUCTION MATERIALS UNDER TRADE AGREEMENTS (JAN 2004)

(a) Definitions. Construction material, designated country construction material, domestic construction material, foreign construction material, and FTA country construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act --Construction Materials under Trade Agreements" (Federal Acquisition Regulation (FAR) clause 52.225-11).

(b) Requests for determination of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of FAR clause 52.225-11 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction materials, by adding to the offered price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(4)(i) of FAR clause 52.225-11.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers. (1) When an offer includes foreign construction material, other than designated country or FTA country construction material, that is not listed by the Government in this solicitation in paragraph (b)(3) of FAR clause 52.225-11, the offeror also may submit an alternate offer based on use of equivalent domestic, designated country, or FTA country construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of FAR clause 52.225-11 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of FAR clause 52.225-11 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic, designated country, or FTA country construction material, and the offeror shall be required to furnish such domestic, designated country, or FTA country construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

#### 52.233-2 SERVICE OF PROTEST (AUG 1996)

(a) Protests, as defined in section 33.101 of the Federal Acquisition Regulation, that are filed directly with an agency, and copies of any protests that are filed with the General Accounting Office (GAO), shall be served on the Contracting Officer (addressed as follows) by obtaining written and dated acknowledgment of receipt from

Chief, Contracting Office  
USAED, Norfolk  
803 Front Street  
Norfolk, VA 23510-1096



(b) The copy of any protest shall be received in the office designated above within one day of filing a protest with the GAO.

(End of provision)

#### 52.236-27 SITE VISIT (CONSTRUCTION) (FEB 1995)

(a) The clauses at 52.236-2, Differing Site Conditions, and 52.236-3, Site Investigations and Conditions Affecting the Work, will be included in any contract awarded as a result of this solicitation. Accordingly, offerors or quoters are urged and expected to inspect the site where the work will be performed.

(b) Site visits may be arranged during normal duty hours by contacting:

Name: Michael Anderson

Address: 803 Front Street, Norfolk, VA 23510-1096

Telephone: (757) 441-7584

(End of provision)

#### 52.252-5 AUTHORIZED DEVIATIONS IN PROVISIONS (APR 1984)

(a) The use in this solicitation of any Federal Acquisition Regulation (48 CFR Chapter 1) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the date of the provision.

(b) The use in this solicitation of any \_\_\_\_\_ (48 CFR Chapter \_\_\_\_\_) provision with an authorized deviation is indicated by the addition of "(DEVIATION)" after the name of the regulation.

(End of provision)

#### 252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

(1) Furnishing all plant, labor, equipment, appliances, and materials; and

(2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

#### E4LC02 AWARD TO RESPONSIBLE OFFEROR

Responsibility will be determined, prior to award, by the Contracting Officer, either by performing a pre-award survey or conclusions based on a previous pre-award survey and/or any performance data available. A pre-award survey will be performed and the offeror will be required to show that he has the necessary capital, experience, and owns or can procure the necessary plant or other resources to commence the work at the time prescribed in the specifications and thereafter to prosecute and complete the work safely and satisfactorily within the time specified.

**E4LC04                    EVIDENCE OF AUTHORITY TO SIGN OFFERS**

Evidence of the authority of individuals signing offers to submit firm offers on behalf of the offeror is required except where the offer is signed, and shows that it is so signed, by: the President, Vice-President, or Secretary of an incorporated offeror; a partner in the case of a partnership; or the owner in the case of a sole proprietorship. Failure to submit with the offer satisfactory evidence of the authority of all other persons may be cause for rejection of the offer as invalid or nonresponsive.

#### E4LC05            PREAWARD SAFETY CONFERENCE

a. Where an apparent low bidder, in performance of contracts during the previous three-year period, incurred one or more accidents, or where, in the opinion of the Contracting Officer, there is any question regarding this compliance with any safety or accident prevention requirement, such bidder, on request of the Contracting Officer prior to any award under this solicitation, shall attend a conference with representatives of the Contracting Officer to discuss any such accidents or non-compliance, the reason for their occurrence, and measures which will be taken to preclude any recurrence thereof.

b. Information elicited at this conference will be used by the Contracting Officer, in conjunction with other information obtained in a preaward survey, in determining the bidder's responsibility.

c. The items discussed, the preventive measures considered, and any conclusions reached in this conference shall be recorded in minutes of the meeting, which shall be authenticated by the signatures of representatives of the bidder and the Contracting Officer, and any procedures noted therein as agreed upon shall become an obligation of the bidder, along with all other safety and accident prevention requirements of the contract, if award is made to him.

#### E4LC06            INSPECTION OF THE SITE

Prospective bidders are invited to visit the site of the work in order to acquaint themselves as to site conditions and other problems incident to the prosecution of the work. Arrangements for inspection of the site shall be made through the Office the Area Engineer identified in the clause 52.236-27, entitled "SITE VISIT (CONSTRUCTION)."

#### E4LC07            SUBCONTRACTING PLAN (CONSTRUCTION)

If the offeror is a large business and the offer amount exceeds \$1,000,000.00, he shall submit a subcontracting plan within three (3) working days of being notified (either verbally or in writing) that he is the apparent low bidder or is otherwise in line for award. The subcontracting plan shall be reviewed and approved by the Contracting Officer prior to award.

E4LC08            MAGNITUDE OF CONSTRUCTION PROJECT

The estimated contract price of the work for this project is between \$1,000,000.00 and \$5,000,000.00.

## E4LC09 BASIS OF AWARD

All blanks must be filled in by the bidder. A single award will be made to the lowest responsible, responsive bidder on the basis of the total price bid. Prior to making an award, a pre-award survey will be made and the low bidder will be required to show that he has the necessary capital, experience, and owns or can procure the necessary plant to commence the work at the time prescribed in the specifications and thereafter to prosecute and complete the work safely and satisfactorily within the time specified.

## E4LC18 CONTRACTOR IDENTIFICATION NUMBER

The offeror is to supply his/her Contractor Identification Number, also known as the Data Universal Numbering System (DUNS) number, in the space provided below:

DUNS: \_\_\_\_\_

This number can be obtained by following the instructions in FAR Clause 52.204-0006, which appears in Section L or Section 00100 of this document.

## E4LC23 INCURRING COSTS

The Government is not liable for any costs incurred by the offeror submitting an offer in response to this solicitation.

## E4LC29 AGENTS

Offers signed by an agent must be made in the name of the Principal and must be accompanied by evidence of said Agent's authority to act on behalf of its Principal.

AWARD SURVEY of the

Telephone Number/Fax Number

CONTRACTOR PERFORMANCE AND BANKING INFORMATION

firm selected for award.

of  
Contact

in order for us

with the information provided in the award survey information.

<YOUR FIRM'S NAME>

AWARD SURVEY INFORMATION

of  
Contact

R SCOPE AND SIZE:

ion from public and size:

## Section 00600 - Representations &amp; Certifications

## CLAUSES INCORPORATED BY FULL TEXT

## 52.203-2 CERTIFICATE OF INDEPENDENT PRICE DETERMINATION (APR 1985)

(a) The offeror certifies that --

(1) The prices in this offer have been arrived at independently, without, for the purpose of restricting competition, any consultation, communication, or agreement with any other offeror or competitor relating to --

(i) Those prices,

(ii) The intention to submit an offer, or

(iii) The methods of factors used to calculate the prices offered:

(2) The prices in this offer have not been and will not be knowingly disclosed by the offeror, directly or indirectly, to any other offeror or competitor before bid opening (in the case of a sealed bid solicitation) or contract award (in the case of a negotiated solicitation) unless otherwise required by law; and

(3) No attempt has been made or will be made by the offeror to induce any other concern to submit or not to submit an offer for the purpose of restricting competition.

(b) Each signature on the offer is considered to be a certification by the signatory that the signatory --

(1) Is the person in the offeror's organization responsible for determining the prices offered in this bid or proposal, and that the signatory has not participated and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision; or

(2) (i) Has been authorized, in writing, to act as agent for the following principals in certifying that those principals have not participated, and will not participate in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision \_\_\_\_\_ (insert full name of person(s) in the offeror's organization responsible for determining the prices offered in this bid or proposal, and the title of his or her position in the offeror's organization);

(ii) As an authorized agent, does certify that the principals named in subdivision (b)(2)(i) above have not participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) above; and

(iii) As an agent, has not personally participated, and will not participate, in any action contrary to subparagraphs (a)(1) through (a)(3) of this provision.

(c) If the offeror deletes or modifies subparagraph (a)(2) of this provision, the offeror must furnish with its offer a signed statement setting forth in detail the circumstances of the disclosure.

(End of clause)

## 52.203-11 CERTIFICATION AND DISCLOSURE REGARDING PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (APR 1991)

(a) The definitions and prohibitions contained in the clause, at FAR 52.203-12, Limitation on Payments to Influence Certain Federal Transactions, included in this solicitation, are hereby incorporated by reference in paragraph (b) of this Certification.

(b) The offeror, by signing its offer, hereby certifies to the best of his or her knowledge and belief that on or after December 23, 1989,--

(1) No Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress on his or her behalf in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any Federal contract, grant, loan, or cooperative agreement;

(2) If any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress on his or her behalf in connection with this solicitation, the offeror shall complete and submit, with its offer, OMB standard form LLL, Disclosure of Lobbying Activities, to the Contracting Officer; and

(3) He or she will include the language of this certification in all subcontract awards at any tier and require that all recipients of subcontract awards in excess of \$100,000 shall certify and disclose accordingly.

(1) Submission of this certification and disclosure is a prerequisite for making or entering into this contract imposed by section 1352, title 31, United States Code. Any person who makes an expenditure prohibited under this provision, shall be subject to a civil penalty of not less than \$10,000, and not more than \$100,000, for each such failure.

(End of provision)

#### 52.204-3 TAXPAYER IDENTIFICATION (OCT 1998)

(a) Definitions.

“Common parent,” as used in this provision, means that corporate entity that owns or controls an affiliated group of corporations that files its Federal income tax returns on a consolidated basis, and of which the offeror is a member.

“Taxpayer Identification Number (TIN),” as used in this provision, means the number required by the Internal Revenue Service (IRS) to be used by the offeror in reporting income tax and other returns. The TIN may be either a Social Security Number or an Employer Identification Number.

(b) All offerors must submit the information required in paragraphs (d) through (f) of this provision to comply with debt collection requirements of 31 U.S.C. 7701(c) and 3325(d), reporting requirements of 26 U.S.C. 6041, 6041A, and 6050M, and implementing regulations issued by the IRS. If the resulting contract is subject to the payment reporting requirements described in Federal Acquisition Regulation (FAR) 4.904, the failure or refusal by the offeror to furnish the information may result in a 31 percent reduction of payments otherwise due under the contract.

(c) The TIN may be used by the Government to collect and report on any delinquent amounts arising out of the offeror's relationship with the Government (31 U.S.C. 7701(c)(3)). If the resulting contract is subject to the payment reporting requirements described in FAR 4.904, the TIN provided hereunder may be matched with IRS records to verify the accuracy of the offeror's TIN.



## (d) Taxpayer Identification Number (TIN).

☐ TIN: \_\_\_\_\_☐ TIN has been applied for.☐ TIN is not required because:☐ Offeror is a nonresident alien, foreign corporation, or foreign partnership that does not have income effectively connected with the conduct of a trade or business in the United States and does not have an office or place of business or a fiscal paying agent in the United States;☐ Offeror is an agency or instrumentality of a foreign government;☐ Offeror is an agency or instrumentality of the Federal Government.

## (e) Type of organization.

☐ Sole proprietorship;☐ Partnership;☐ Corporate entity (not tax-exempt);☐ Corporate entity (tax-exempt);☐ Government entity (Federal, State, or local);☐ Foreign government;☐ International organization per 26 CFR 1.6049-4;☐ Other \_\_\_\_\_

## (f) Common parent.

☐ Offeror is not owned or controlled by a common parent as defined in paragraph (a) of this provision.☐ Name and TIN of common parent:

Name \_\_\_\_\_

TIN \_\_\_\_\_

(End of provision)

## 52.204-5 WOMEN-OWNED BUSINESS (OTHER THAN SMALL BUSINESS) (MAY 1999)

(a) Definition. Women-owned business concern, as used in this provision, means a concern that is at least 51 percent owned by one or more women; or in the case of any publicly owned business, at least 51 percent of its stock is

owned by one or more women; and whose management and daily business operations are controlled by one or more women.

(b) Representation. [Complete only if the offeror is a women-owned business concern and has not represented itself as a small business concern in paragraph (b)(1) of FAR 52.219-1, Small Business Program Representations, of this solicitation.] The offeror represents that it ( ) is a women-owned business concern.

(End of provision)

#### 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)

(a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS+4” followed by the DUNS number or “DUNS+4” that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet, Inc. The DUNS+4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11) for the same parent concern.

(b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number--

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business name.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company physical street address, city, state and Zip Code.

(iv) Company mailing address, city, state and Zip Code (if separate from physical).

(v) Company telephone number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(End of provision)

52.209-5 CERTIFICATION REGARDING DEBARMENT, SUSPENSION, PROPOSED DEBARMENT, AND OTHER RESPONSIBILITY MATTERS (DEC 2001)

(a)(1) The Offeror certifies, to the best of its knowledge and belief, that-

(i) The Offeror and/or any of its Principals -

(A) Are ( ) are not ( ) presently debarred, suspended, proposed for debarment, or declared ineligible for the award of contracts by any Federal agency;

(B) Have ( ) have not ( ), within a three-year period preceding this offer, been convicted of or had a civil judgment rendered against them for: commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, state, or local) contract or subcontract; violation of Federal or state antitrust statutes relating to the submission of offers; or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, tax evasion, or receiving stolen property; and

(C) Are ( ) are not ( ) presently indicted for, or otherwise criminally or civilly charged by a governmental entity with, commission of any of the offenses enumerated in paragraph (a)(1)(i)(B) of this provision.

(ii) The Offeror has ( ) has not ( ), within a three-year period preceding this offer, had one or more contracts terminated for default by any Federal agency.

(2) "Principals," for the purposes of this certification, means officers; directors; owners; partners; and, persons having primary management or supervisory responsibilities within a business entity (e.g., general manager; plant manager; head of a subsidiary, division, or business segment, and similar positions).

This Certification Concerns a Matter Within the Jurisdiction of an Agency of the United States and the Making of a False, Fictitious, or Fraudulent Certification May Render the Maker Subject to Prosecution Under Section 1001, Title 18, United States Code.

(b) The Offeror shall provide immediate written notice to the Contracting Officer if, at any time prior to contract award, the Offeror learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.

(c) A certification that any of the items in paragraph (a) of this provision exists will not necessarily result in withholding of an award under this solicitation. However, the certification will be considered in connection with a determination of the Offeror's responsibility. Failure of the Offeror to furnish a certification or provide such additional information as requested by the Contracting Officer may render the Offeror nonresponsible.

(d) Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render, in good faith, the certification required by paragraph (a) of this provision. The knowledge and information of an Offeror is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

(e) The certification in paragraph (a) of this provision is a material representation of fact upon which reliance was placed when making award. If it is later determined that the Offeror knowingly rendered an erroneous certification, in addition to other remedies available to the Government, the Contracting Officer may terminate the contract resulting from this solicitation for default.

(End of provision)

52.219-1 SMALL BUSINESS PROGRAM REPRESENTATIONS (APR 2002)

(a)(1) The North American Industry Classification System (NAICS) code for this acquisition is 237990.

(2) The small business size standard is \$17.0 Million.

(3) The small business size standard for a concern which submits an offer in its own name, other than on a construction or service contract, but which proposes to furnish a product which it did not itself manufacture, is 500 employees.

(b) Representations. (1) The offeror represents as part of its offer that it ( ) is, ( ) is not a small business concern.

(2) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, for general statistical purposes, that it ( ) is, ( ) is not a small disadvantaged business concern as defined in 13 CFR 124.1002.

(3) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a women-owned small business concern.

(4) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a veteran-owned small business concern.

(5) (Complete only if the offeror represented itself as a veteran-owned small business concern in paragraph (b)(4) of this provision.) The offeror represents as part of its offer that it ( ) is, ( ) is not a service-disabled veteran-owned small business concern.

(6) (Complete only if the offeror represented itself as a small business concern in paragraph (b)(1) of this provision.) The offeror represents, as part of its offer, that--

(i) It ( ) is, ( ) is not a HUBZone small business concern listed, on the date of this representation, on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration, and no material change in ownership and control, principal office, or HUBZone employee percentage has occurred since it was certified by the Small Business Administration in accordance with 13 CFR part 126; and

(ii) It ( ) is, ( ) is not a joint venture that complies with the requirements of 13 CFR part 126, and the representation in paragraph (b)(6)(i) of this provision is accurate for the HUBZone small business concern or concerns that are participating in the joint venture. (The offeror shall enter the name or names of the HUBZone small business concern or concerns that are participating in the joint venture:\_\_\_\_\_.) Each HUBZone small business concern participating in the joint venture shall submit a separate signed copy of the HUBZone representation.

(c) Definitions. As used in this provision--

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

"Small business concern," means a concern, including its affiliates, that is independently owned and operated, not dominant in the field of operation in which it is bidding on Government contracts, and qualified as a small business under the criteria in 13 CFR Part 121 and the size standard in paragraph (a) of this provision.

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

"Women-owned small business concern," means a small business concern --

(1) That is at least 51 percent owned by one or more women; in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Notice.

(1) If this solicitation is for supplies and has been set aside, in whole or in part, for small business concerns, then the clause in this solicitation providing notice of the set-aside contains restrictions on the source of the end items to be furnished.

(2) Under 15 U.S.C. 645(d), any person who misrepresents a firm's status as a small, HUBZone small, small disadvantaged, or women-owned small business concern in order to obtain a contract to be awarded under the preference programs established pursuant to section 8(a), 8(d), 9, or 15 of the Small Business Act or any other provision of Federal law that specifically references section 8(d) for a definition of program eligibility, shall--

(i) Be punished by imposition of fine, imprisonment, or both;

(ii) Be subject to administrative remedies, including suspension and debarment; and

(iii) Be ineligible for participation in programs conducted under the authority of the Act.

(End of provision)

(a) This provision applies to small business concerns only.

(b) The bidder's status as a labor surplus area (LSA) concern may affect entitlement to award in case of tie bids. If the bidder wishes to be considered for this priority, the bidder must identify, in the following space, the LSA in which the costs to be incurred on account of manufacturing or production (by the bidder or the first-tier subcontractors) amount to more than 50 percent of the contract price.

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(c) Failure to identify the labor surplus area as specified in paragraph (b) of this provision will preclude the bidder from receiving priority consideration. If the bidder is awarded a contract as a result of receiving priority consideration under this provision and would not have otherwise received award, the bidder shall perform the contract or cause the contract to be performed in accordance with the obligations of an LSA concern.

52.219-19 SMALL BUSINESS CONCERN REPRESENTATION FOR THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (OCT 2000)

(a) Definition.

"Emerging small business" as used in this solicitation, means a small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the North American Industry Classification System (NAICS) code assigned to a contracting opportunity.

(b) [Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.] The Offeror [ ] is, [ ] is not an emerging small business.

(c) (Complete only if the Offeror is a small business or an emerging small business, indicating its size range.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees    Avg. Annual Gross Revenues

\_\_\_ 50 or fewer    \_\_\_ \$1 million or less

\_\_\_ 51 - 100    \_\_\_ \$1,000,001 - \$2 million

\_\_\_ 101 - 250    \_\_\_ \$2,000,001 - \$3.5 million

\_\_\_ 251 - 500    \_\_\_ \$3,500,001 - \$5 million

\_\_\_ 501 - 750    \_\_\_ \$5,000,001 - \$10 million

\_\_\_ 751 - 1,000    \_\_\_ \$10,000,001 - \$17 million

\_\_\_ Over 1,000    \_\_\_ Over \$17 million

(End of provision)

**52.219-21 SMALL BUSINESS SIZE REPRESENTATION FOR TARGETED INDUSTRY CATEGORIES UNDER THE SMALL BUSINESS COMPETITIVENESS DEMONSTRATION PROGRAM (MAY 1999)**

(Complete only if the Offeror has represented itself under the provision at 52.219-1 as a small business concern under the size standards of this solicitation.)

Offeror's number of employees for the past 12 months (check this column if size standard stated in solicitation is expressed in terms of number of employees) or Offeror's average annual gross revenue for the last 3 fiscal years (check this column if size standard stated in solicitation is expressed in terms of annual receipts). (Check one of the following.)

No. of Employees    Avg. Annual Gross Revenues

\_\_\_ 50 or fewer    \_\_\_ \$1 million or less

\_\_\_ 51 - 100    \_\_\_ \$1,000,001 - \$2 million

\_\_\_ 101 - 250    \_\_\_ \$2,000,001 - \$3.5 million

\_\_\_ 251 - 500    \_\_\_ \$3,500,001 - \$5 million

\_\_\_ 501 - 750    \_\_\_ \$5,000,001 - \$10 million

\_\_\_ 751 - 1,000    \_\_\_ \$10,000,001 - \$17 million

\_\_\_ Over 1,000    \_\_\_ Over \$17 million

(End of provision)

**52.222-22 PREVIOUS CONTRACTS AND COMPLIANCE REPORTS (FEB 1999)**

The offeror represents that --

(a) ( ) It has, ( ) has not participated in a previous contract or subcontract subject to the Equal Opportunity clause of this solicitation;

(b) ( ) It has, ( ) has not, filed all required compliance reports; and

(c) Representations indicating submission of required compliance reports, signed by proposed subcontractors, will be obtained before subcontract awards.

(End of provision)

**52.223-13 CERTIFICATION OF TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)**

(a) Executive Order 13148, of April 21, 2000, Greening the Government through Leadership in Environmental Management, requires submission of this certification as a prerequisite for contract award.

(b) By signing this offer, the offeror certifies that--

(1) As the owner or operator of facilities that will be used in the performance of this contract that are subject to the filing and reporting requirements described in section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023) and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106), the offeror will file and continue to file for such facilities for the life of the contract the Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of EPCRA and section 6607 of PPA; or

(2) None of its owned or operated facilities to be used in the performance of this contract is subject to the Form R filing and reporting requirements because each such facility is exempt for at least one of the following reasons: (Check each block that is applicable.)

( ) (i) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;

( ) (ii) The facility does not have 10 or more full-time employees as specified in section 313.(b)(1)(A) of EPCRA 42 U.S.C. 11023(b)(1)(A);

( ) (iii) The facility does not meet the reporting thresholds of toxic chemicals established under section 313(f) of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);

( ) (iv) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:

(A) Major group code 10 (except 1011, 1081, and 1094.

(B) Major group code 12 (except 1241).

(C) Major group codes 20 through 39.

(D) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(E) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

( ) (v) The facility is not located within the United States or its outlying areas.

(End of clause)

252.209-7001 DISCLOSURE OF OWNERSHIP OR CONTROL BY THE GOVERNMENT OF A TERRORIST COUNTRY (MAR 1998)

(a) "Definitions."

As used in this provision --



(a) "Government of a terrorist country" includes the state and the government of a terrorist country, as well as any political subdivision, agency, or instrumentality thereof.

(2) "Terrorist country" means a country determined by the Secretary of State, under section 6(j)(1)(A) of the Export Administration Act of 1979 (50 U.S.C. App. 2405(j)(i)(A)), to be a country the government of which has repeatedly provided support for such acts of international terrorism. As of the date of this provision, terrorist countries include: Cuba, Iran, Iraq, Libya, North Korea, Sudan, and Syria.

(3) "Significant interest" means --

(i) Ownership of or beneficial interest in 5 percent or more of the firm's or subsidiary's securities. Beneficial interest includes holding 5 percent or more of any class of the firm's securities in "nominee shares," "street names," or some other method of holding securities that does not disclose the beneficial owner;

(ii) Holding a management position in the firm, such as a director or officer;

(iii) Ability to control or influence the election, appointment, or tenure of directors or officers in the firm;

(iv) Ownership of 10 percent or more of the assets of a firm such as equipment, buildings, real estate, or other tangible assets of the firm; or

(v) Holding 50 percent or more of the indebtedness of a firm.

(b) "Prohibition on award."

In accordance with 10 U.S.C. 2327, no contract may be awarded to a firm or a subsidiary of a firm if the government of a terrorist country has a significant interest in the firm or subsidiary or, in the case of a subsidiary, the firm that owns the subsidiary, unless a waiver is granted by the Secretary of Defense.

(c) "Disclosure."

If the government of a terrorist country has a significant interest in the Offeror or a subsidiary of the Offeror, the Offeror shall disclose such interest in an attachment to its offer. If the Offeror is a subsidiary, it shall also disclose any significant interest the government of a terrorist country has in any firm that owns or controls the subsidiary. The disclosure shall include --

(1) Identification of each government holding a significant interest; and

(2) A description of the significant interest held by each government.

(End of provision)

#### 252.247-7022 REPRESENTATION OF EXTENT OF TRANSPORTATION BY SEA (AUG 1992)

(a) The Offeror shall indicate by checking the appropriate blank in paragraph (b) of this provision whether transportation of supplies by sea is anticipated under the resultant contract. The term supplies is defined in the Transportation of Supplies by Sea clause of this solicitation.

(b) Representation. The Offeror represents that it:

\_\_\_\_ (1) Does anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

\_\_\_\_ (2) Does not anticipate that supplies will be transported by sea in the performance of any contract or subcontract resulting from this solicitation.

(c) Any contract resulting from this solicitation will include the Transportation of Supplies by Sea clause. If the Offeror represents that it will not use ocean transportation, the resulting contract will also include the Defense FAR Supplement clause at 252.247-7024, Notification of Transportation of Supplies by Sea.

(End of provision)

#### E4LC01 CORPORATE CERTIFICATE

Note: Contractor, if a corporation, should cause the following certificate to be executed under its corporate seal, provided that the same officer shall not execute both the contract and the certificate.

#### CERTIFICATE

I, \_\_\_\_\_, certify that I am  
 \_\_\_\_\_ of the corporation named as Contractor herein, that  
 \_\_\_\_\_, was then the \_\_\_\_\_ of said  
 corporation; that said contract was duly signed for and in behalf of said corporation of authority  
 of its governing body, and is within the scope of its corporate powers.

\_\_\_\_\_  
 (Name of Corporation)

\_\_\_\_\_  
 (Signature)

(Corporate Seal)

NOTE: A CORPORATE OFFICER OTHER THAN THE OFFICER SIGNING THE SOLICITATION MUST FILL OUT AND SIGN THIS FORM.

E4LC17            COMMERCIAL AND GOVERNMENT ENTITY (CAGE) CODE REPORTING

(a) The Offeror is requested to enter its CAGE code in the space provided below. The CAGE code entered must be for that name and address.

(b) If the Offeror does not have a CAGE code, it may ask the Contracting Officer to request one in accordance with the provisions of DFARS 52.204-7001 in the section of this solicitation entitled "Instructions to Bidders."

(c) Do not delay submission of the offer pending receipt of a CAGE code.

CAGE Code: \_ \_ \_ \_ \_

( ) UNKNOWN

E4LC18            CONTRACTOR IDENTIFICATION NUMBER

The offeror is to supply his/her Contractor Identification Number, also known as the Data Universal Numbering System (DUNS) number, in the space provided below:

DUNS: \_ \_ \_ \_ \_

This number can be obtained by following the instructions in FAR Clause 52.204-0006, which appears in Section L or Section 00100 of this document.

## Section 00700 - Contract Clauses

## CLAUSES INCORPORATED BY FULL TEXT

## 52.202-1 DEFINITIONS (DEC 2001)

(a) Agency head or head of the agency means the Secretary (Attorney General, Administrator, Governor, Chairperson, or other chief official, as appropriate) of the agency, unless otherwise indicated, including any deputy or assistant chief official of the executive agency.

(b) Commercial component means any component that is a commercial item.

(c) Commercial item means--

(1) Any item, other than real property, that is of a type customarily used by the general public or by non-governmental entities for purposes other than governmental purposes, and that--

(i) Has been sold, leased, or licensed to the general public; or

(ii) Has been offered for sale, lease, or license to the general public;

(2) Any item that evolved from an item described in paragraph (c)(1) of this clause through advances in technology or performance and that is not yet available in the commercial marketplace, but will be available in the commercial marketplace in time to satisfy the delivery requirements under a Government solicitation;

(3) Any item that would satisfy a criterion expressed in paragraphs (c)(1) or (c)(2) of this clause, but for--

(i) Modifications of a type customarily available in the commercial marketplace; or

(ii) Minor modifications of a type not customarily available in the commercial marketplace made to meet Federal Government requirements. "Minor" modifications means modifications that do not significantly alter the nongovernmental function or essential physical characteristics of an item or component, or change the purpose of a process. Factors to be considered in determining whether a modification is minor include the value and size of the modification and the comparative value and size of the final product. Dollar values and percentages may be used as guideposts, but are not conclusive evidence that a modification is minor;

(4) Any combination of items meeting the requirements of paragraphs (c)(1), (2), (3), or (5) of this clause that are of a type customarily combined and sold in combination to the general public;

(5) Installation services, maintenance services, repair services, training services, and other services if--

(i) Such services are procured for support of an item referred to in paragraph (c)(1), (2), (3), or (4) of this definition, regardless of whether such services are provided by the same source or at the same time as the item; and

(ii) The source of such services provides similar services contemporaneously to the general public under terms and conditions similar to those offered to the Federal Government;

(6) Services of a type offered and sold competitively in substantial quantities in the commercial marketplace based on established catalog or market prices for specific tasks performed under standard commercial terms and conditions. This does not include services that are sold based on hourly rates without an established catalog or market price for a specific service performed. For purposes of these services--

(i) Catalog price means a price included in a catalog, price list, schedule, or other form that is regularly maintained by the manufacturer or vendor, is either published or otherwise available for inspection by customers, and states prices at which sales are currently, or were last, made to a significant number of buyers constituting the general public; and

(ii) Market prices means current prices that are established in the course of ordinary trade between buyers and sellers free to bargain and that can be substantiated through competition or from sources independent of the offerors.

(7) Any item, combination of items, or service referred to in subparagraphs (c)(1) through (c)(6), notwithstanding the fact that the item, combination of items, or service is transferred between or among separate divisions, subsidiaries, or affiliates of a Contractor; or

(8) A nondevelopmental item, if the procuring agency determines the item was developed exclusively at private expense and sold in substantial quantities, on a competitive basis, to multiple State and local Governments.

(d) Component means any item supplied to the Government as part of an end item or of another component, except that for use in 52.225-9, and 52.225-11 see the definitions in 52.225-9(a) and 52.225-11(a).

(e) Contracting Officer means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(f) Nondevelopmental item means--

(1) Any previously developed item of supply used exclusively for governmental purposes by a Federal agency, a State or local government, or a foreign government with which the United States has a mutual defense cooperation agreement;

(2) Any item described in paragraph (f)(1) of this definition that requires only minor modification or modifications of a type customarily available in the commercial marketplace in order to meet the requirements of the procuring department or agency; or

(3) Any item of supply being produced that does not meet the requirements of paragraph (f)(1) or (f)(2) solely because the item is not yet in use.

(g) "Contracting Officer" means a person with the authority to enter into, administer, and/or terminate contracts and make related determinations and findings. The term includes certain authorized representatives of the Contracting Officer acting within the limits of their authority as delegated by the Contracting Officer.

(h) Except as otherwise provided in this contract, the term "subcontracts" includes, but is not limited to, purchase orders and changes and modifications to purchase orders under this contract.

(End of clause)

#### 52.203-3 GRATUITIES (APR 1984)

(a) The right of the Contractor to proceed may be terminated by written notice if, after notice and hearing, the agency head or a designee determines that the Contractor, its agent, or another representative--

(1) Offered or gave a gratuity (e.g., an entertainment or gift) to an officer, official, or employee of the Government; and

(2) Intended, by the gratuity, to obtain a contract or favorable treatment under a contract.

(b) The facts supporting this determination may be reviewed by any court having lawful jurisdiction.

(c) If this contract is terminated under paragraph (a) of this clause, the Government is entitled--

(1) To pursue the same remedies as in a breach of the contract; and

(2) In addition to any other damages provided by law, to exemplary damages of not less than 3 nor more than 10 times the cost incurred by the Contractor in giving gratuities to the person concerned, as determined by the agency head or a designee. (This subparagraph (c)(2) is applicable only if this contract uses money appropriated to the Department of Defense.)

(d) The rights and remedies of the Government provided in this clause shall not be exclusive and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.203-5 COVENANT AGAINST CONTINGENT FEES (APR 1984)

(a) The Contractor warrants that no person or agency has been employed or retained to solicit or obtain this contract upon an agreement or understanding for a contingent fee, except a bona fide employee or agency. For breach or violation of this warranty, the Government shall have the right to annul this contract without liability or, in its discretion, to deduct from the contract price or consideration, or otherwise recover, the full amount of the contingent fee.

(b) "Bona fide agency," as used in this clause, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds itself out as being able to obtain any Government contract or contracts through improper influence.

"Bona fide employee," as used in this clause, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain Government contracts nor holds out as being able to obtain any Government contract or contracts through improper influence.

"Contingent fee," as used in this clause, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a Government contract.

"Improper influence," as used in this clause, means any influence that induces or tends to induce a Government employee or officer to give consideration or to act regarding a Government contract on any basis other than the merits of the matter.

(End of clause)

#### 52.203-7 ANTI-KICKBACK PROCEDURES. (JUL 1995)

(a) Definitions.

"Kickback," as used in this clause, means any money, fee, commission, credit, gift, gratuity, thing of value, or compensation of any kind which is provided, directly or indirectly, to any prime Contractor, prime Contractor employee, subcontractor, or subcontractor employee for the purpose of improperly obtaining or rewarding favorable

treatment in connection with a prime contract or in connection with a subcontract relating to a prime contract.

"Person," as used in this clause, means a corporation, partnership, business association of any kind, trust, joint-stock company, or individual.

"Prime contract," as used in this clause, means a contract or contractual action entered into by the United States for the purpose of obtaining supplies, materials, equipment, or services of any kind.

"Prime Contractor," as used in this clause, means a person who has entered into a prime contract with the United States.

"Prime Contractor employee," as used in this clause, means any officer, partner, employee, or agent of a prime Contractor.

"Subcontract," as used in this clause, means a contract or contractual action entered into by a prime Contractor or subcontractor for the purpose of obtaining supplies, materials, equipment, or services of any kind under a prime contract.

"Subcontractor," as used in this clause, (1) means any person, other than the prime Contractor, who offers to furnish or furnishes any supplies, materials, equipment, or services of any kind under a prime contract or a subcontract entered into in connection with such prime contract, and (2) includes any person who offers to furnish or furnishes general supplies to the prime Contractor or a higher tier subcontractor.

"Subcontractor employee," as used in this clause, means any officer, partner, employee, or agent of a subcontractor.

(b) The Anti-Kickback Act of 1986 (41 U.S.C. 51-58) (the Act), prohibits any person from -

(1) Providing or attempting to provide or offering to provide any kickback;

(2) Soliciting, accepting, or attempting to accept any kickback; or

(3) Including, directly or indirectly, the amount of any kickback in the contract price charged by a prime Contractor to the United States or in the contract price charged by a subcontractor to a prime Contractor or higher tier subcontractor.

(c)(1) The Contractor shall have in place and follow reasonable procedures designed to prevent and detect possible violations described in paragraph (b) of this clause in its own operations and direct business relationships.

(2) When the Contractor has reasonable grounds to believe that a violation described in paragraph (b) of this clause may have occurred, the Contractor shall promptly report in writing the possible violation. Such reports shall be made to the inspector general of the contracting agency, the head of the contracting agency if the agency does not have an inspector general, or the Department of Justice.

(3) The Contractor shall cooperate fully with any Federal agency investigating a possible violation described in paragraph (b) of this clause.

(4) The Contracting Officer may (i) offset the amount of the kickback against any monies owed by the United States under the prime contract and/or (ii) direct that the Prime Contractor withhold, from sums owed a subcontractor under the prime contract, the amount of any kickback. The Contracting Officer may order the monies withheld under subdivision (c)(4)(ii) of this clause be paid over to the Government unless the Government has already offset those monies under subdivision (c)(4)(i) of this clause. In either case, the Prime Contractor shall notify the Contracting Officer when the monies are withheld.

(5) The Contractor agrees to incorporate the substance of this clause, including this subparagraph (c)(5) but excepting subparagraph (c)(1), in all subcontracts under this contract which exceed \$100,000.

52.203-8 CANCELLATION, RESCISSION, AND RECOVERY OF FUNDS FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) If the Government receives information that a contractor or a person has engaged in conduct constituting a violation of subsection (a), (b), (c), or (d) of Section 27 of the Office of Federal Procurement Policy Act (41 U.S.C. 423) (the Act), as amended by section 4304 of the 1996 National Defense Authorization Act for Fiscal Year 1996 (Pub. L. 104-106), the Government may--

(1) Cancel the solicitation, if the contract has not yet been awarded or issued; or

(2) Rescind the contract with respect to which--

(i) The Contractor or someone acting for the Contractor has been convicted for an offense where the conduct constitutes a violation of subsection 27(a) or (b) of the Act for the purpose of either--

(A) Exchanging the information covered by such subsections for anything of value; or

(B) Obtaining or giving anyone a competitive advantage in the award of a Federal agency procurement contract; or

(ii) The head of the contracting activity has determined, based upon a preponderance of the evidence, that the Contractor or someone acting for the Contractor has engaged in conduct constituting an offense punishable under subsections 27(e)(1) of the Act.

(b) If the Government rescinds the contract under paragraph (a) of this clause, the Government is entitled to recover, in addition to any penalty prescribed by law, the amount expended under the contract.

(c) The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law, regulation, or under this contract.

(End of clause)

52.203-10 PRICE OR FEE ADJUSTMENT FOR ILLEGAL OR IMPROPER ACTIVITY (JAN 1997)

(a) The Government, at its election, may reduce the price of a fixed-price type contract and the total cost and fee under a cost-type contract by the amount of profit or fee determined as set forth in paragraph (b) of this clause if the head of the contracting activity or designee determines that there was a violation of subsection 27 (a), (b), or (c) of the Office of Federal Procurement Policy Act, as amended (41 U.S.C. 423), as implemented in section 3.104 of the Federal Acquisition Regulation.

(b) The price or fee reduction referred to in paragraph (a) of this clause shall be--

(1) For cost-plus-fixed-fee contracts, the amount of the fee specified in the contract at the time of award;

(2) For cost-plus-incentive-fee contracts, the target fee specified in the contract at the time of award, notwithstanding



any minimum fee or "fee floor" specified in the contract;

(3) For cost-plus-award-fee contracts--

(i) The base fee established in the contract at the time of contract award;

(ii) If no base fee is specified in the contract, 30 percent of the amount of each award fee otherwise payable to the Contractor for each award fee evaluation period or at each award fee determination point.

(4) For fixed-price-incentive contracts, the Government may--

(i) Reduce the contract target price and contract target profit both by an amount equal to the initial target profit specified in the contract at the time of contract award; or

(ii) If an immediate adjustment to the contract target price and contract target profit would have a significant adverse impact on the incentive price revision relationship under the contract, or adversely affect the contract financing provisions, the Contracting Officer may defer such adjustment until establishment of the total final price of the contract. The total final price established in accordance with the incentive price revision provisions of the contract shall be reduced by an amount equal to the initial target profit specified in the contract at the time of contract award and such reduced price shall be the total final contract price.

(5) For firm-fixed-price contracts, by 10 percent of the initial contract price or a profit amount determined by the Contracting Officer from records or documents in existence prior to the date of the contract award.

(c) The Government may, at its election, reduce a prime contractor's price or fee in accordance with the procedures of paragraph (b) of this clause for violations of the Act by its subcontractors by an amount not to exceed the amount of profit or fee reflected in the subcontract at the time the subcontract was first definitively priced.

(d) In addition to the remedies in paragraphs (a) and (c) of this clause, the Government may terminate this contract for default. The rights and remedies of the Government specified herein are not exclusive, and are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

## 52.203-12 LIMITATION ON PAYMENTS TO INFLUENCE CERTAIN FEDERAL TRANSACTIONS (JUN 2003)

(a) Definitions.

"Agency," as used in this clause, means executive agency as defined in 2.101.

"Covered Federal action," as used in this clause, means any of the following Federal actions:

(1) The awarding of any Federal contract.

(2) The making of any Federal grant.

(3) The making of any Federal loan.

(4) The entering into of any cooperative agreement.

(5) The extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

"Indian tribe" and "tribal organization," as used in this clause, have the meaning provided in section 4 of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450B) and include Alaskan Natives.

"Influencing or attempting to influence," as used in this clause, means making, with the intent to influence, any communication to or appearance before an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any covered Federal action.

"Local government," as used in this clause, means a unit of government in a State and, if chartered, established, or otherwise recognized by a State for the performance of a governmental duty, including a local public authority, a special district, an intrastate district, a council of governments, a sponsor group representative organization, and any other instrumentality of a local government.

"Officer or employee of an agency," as used in this clause, includes the following individuals who are employed by an agency:

(1) An individual who is appointed to a position in the Government under Title 5, United States Code, including a position under a temporary appointment.

(2) A member of the uniformed services, as defined in subsection 101(3), Title 37, United States Code.

(3) A special Government employee, as defined in section 202, Title 18, United States Code.

(4) An individual who is a member of a Federal advisory committee, as defined by the Federal Advisory Committee Act, Title 5, United States Code, appendix 2.

"Person," as used in this clause, means an individual, corporation, company, association, authority, firm, partnership, society, State, and local government, regardless of whether such entity is operated for profit, or not for profit. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Reasonable compensation," as used in this clause, means, with respect to a regularly employed officer or employee of any person, compensation that is consistent with the normal compensation for such officer or employee for work that is not furnished to, not funded by, or not furnished in cooperation with the Federal Government.

"Reasonable payment," as used in this clause, means, with respect to professional and other technical services, a payment in an amount that is consistent with the amount normally paid for such services in the private sector.

"Recipient," as used in this clause, includes the Contractor and all subcontractors. This term excludes an Indian tribe, tribal organization, or any other Indian organization with respect to expenditures specifically permitted by other Federal law.

"Regularly employed," as used in this clause, means, with respect to an officer or employee of a person requesting or receiving a Federal contract, an officer or employee who is employed by such person for at least 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person for receipt of such contract. An officer or employee who is employed by such person for less than 130 working days within 1 year immediately preceding the date of the submission that initiates agency consideration of such person shall be considered to be regularly employed as soon as he or she is employed by such person for 130 working days.

State, as used in this clause, means a State of the United States, the District of Columbia, or an outlying area of the United States, an agency or instrumentality of a State, and multi-State, regional, or interstate entity having governmental duties and powers.

## (b) Prohibitions.

(1) Section 1352 of Title 31, United States Code, among other things, prohibits a recipient of a Federal contract, grant, loan, or cooperative agreement from using appropriated funds to pay any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with any of the following covered Federal actions: the awarding of any Federal contract; the making of any Federal grant; the making of any Federal loan; the entering into of any cooperative agreement; or the modification of any Federal contract, grant, loan, or cooperative agreement.

(2) The Act also requires Contractors to furnish a disclosure if any funds other than Federal appropriated funds (including profit or fee received under a covered Federal transaction) have been paid, or will be paid, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with a Federal contract, grant, loan, or cooperative agreement.

(3) The prohibitions of the Act do not apply under the following conditions:

## (i) Agency and legislative liaison by own employees.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of a payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action if the payment is for agency and legislative liaison activities not directly related to a covered Federal action.

(B) For purposes of subdivision (b)(3)(i)(A) of this clause, providing any information specifically requested by an agency or Congress is permitted at any time.

(C) The following agency and legislative liaison activities are permitted at any time where they are not related to a specific solicitation for any covered Federal action:

(1) Discussing with an agency the qualities and characteristics (including individual demonstrations) of the person's products or services, conditions or terms of sale, and service capabilities.

(2) Technical discussions and other activities regarding the application or adaptation of the person's products or services for an agency's use.

(D) The following agency and legislative liaison activities are permitted where they are prior to formal solicitation of any covered Federal action--

(1) Providing any information not specifically requested but necessary for an agency to make an informed decision about initiation of a covered Federal action;

(2) Technical discussions regarding the preparation of an unsolicited proposal prior to its official submission; and

(3) Capability presentations by persons seeking awards from an agency pursuant to the provisions of the Small Business Act, as amended by Pub. L. 95-507, and subsequent amendments.

(E) Only those services expressly authorized by subdivision (b)(3)(i)(A) of this clause are permitted under this clause.

## (ii) Professional and technical services.

(A) The prohibition on the use of appropriated funds, in subparagraph (b)(1) of this clause, does not apply in the case of--

(1) A payment of reasonable compensation made to an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action, if payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action.

(2) Any reasonable payment to a person, other than an officer or employee of a person requesting or receiving a covered Federal action or an extension, continuation, renewal, amendment, or modification of a covered Federal action if the payment is for professional or technical services rendered directly in the preparation, submission, or negotiation of any bid, proposal, or application for that Federal action or for meeting requirements imposed by or pursuant to law as a condition for receiving that Federal action. Persons other than officers or employees of a person requesting or receiving a covered Federal action include consultants and trade associations.

(B) For purposes of subdivision (b)(3)(ii)(A) of this clause, "professional and technical services" shall be limited to advice and analysis directly applying any professional or technical discipline. For example, drafting of a legal document accompanying a bid or proposal by a lawyer is allowable. Similarly, technical advice provided by an engineer on the performance or operational capability of a piece of equipment rendered directly in the negotiation of a contract is allowable. However, communications with the intent to influence made by a professional (such as a licensed lawyer) or a technical person (such as a licensed accountant) are not allowable under this section unless they provide advice and analysis directly applying their professional or technical expertise and unless the advice or analysis is rendered directly and solely in the preparation, submission or negotiation of a covered Federal action. Thus, for example, communications with the intent to influence made by a lawyer that do not provide legal advice or analysis directly and solely related to the legal aspects of his or her client's proposal, but generally advocate one proposal over another are not allowable under this section because the lawyer is not providing professional legal services. Similarly, communications with the intent to influence made by an engineer providing an engineering analysis prior to the preparation or submission of a bid or proposal are not allowable under this section since the engineer is providing technical services but not directly in the preparation, submission or negotiation of a covered Federal action.

(C) Requirements imposed by or pursuant to law as a condition for receiving a covered Federal award include those required by law or regulation and any other requirements in the actual award documents.

(D) Only those services expressly authorized by subdivisions (b)(3)(ii)(A)(1) and (2) of this clause are permitted under this clause.

(E) The reporting requirements of FAR 3.803(a) shall not apply with respect to payments of reasonable compensation made to regularly employed officers or employees of a person.

(c) Disclosure.

(1) The Contractor who requests or receives from an agency a Federal contract shall file with that agency a disclosure form, OMB standard form LLL, Disclosure of Lobbying Activities, if such person has made or has agreed to make any payment using nonappropriated funds (to include profits from any covered Federal action), which would be prohibited under subparagraph (b)(1) of this clause, if paid for with appropriated funds.

(2) The Contractor shall file a disclosure form at the end of each calendar quarter in which there occurs any event that materially affects the accuracy of the information contained in any disclosure form previously filed by such person under subparagraph (c)(1) of this clause. An event that materially affects the accuracy of the information reported includes--

(i) A cumulative increase of \$25,000 or more in the amount paid or expected to be paid for influencing or attempting to influence a covered Federal action; or

(ii) A change in the person(s) or individual(s) influencing or attempting to influence a covered Federal action; or

(iii) A change in the officer(s), employee(s), or Member(s) contacted to influence or attempt to influence a covered Federal action.

(3) The Contractor shall require the submittal of a certification, and if required, a disclosure form by any person who requests or receives any subcontract exceeding \$100,000 under the Federal contract.

(4) All subcontractor disclosure forms (but not certifications) shall be forwarded from tier to tier until received by the prime Contractor. The prime Contractor shall submit all disclosures to the Contracting Officer at the end of the calendar quarter in which the disclosure form is submitted by the subcontractor. Each subcontractor certification shall be retained in the subcontract file of the awarding Contractor.

(d) Agreement. The Contractor agrees not to make any payment prohibited by this clause.

(e) Penalties.

(1) Any person who makes an expenditure prohibited under paragraph (a) of this clause or who fails to file or amend the disclosure form to be filed or amended by paragraph (b) of this clause shall be subject to civil penalties as provided for by 31 U.S.C. 1352. An imposition of a civil penalty does not prevent the Government from seeking any other remedy that may be applicable.

(2) Contractors may rely without liability on the representation made by their subcontractors in the certification and disclosure form.

(f) Cost allowability. Nothing in this clause makes allowable or reasonable any costs which would otherwise be unallowable or unreasonable. Conversely, costs made specifically unallowable by the requirements in this clause will not be made allowable under any other provision.

(End of clause)

52.204-4 PRINTED OR COPIED DOUBLE-SIDED ON RECYCLED PAPER (AUG 2000)

(a) Definitions. As used in this clause--

“Postconsumer material” means a material or finished product that has served its intended use and has been discarded for disposal or recovery, having completed its life as a consumer item. Postconsumer material is a part of the broader category of “recovered material.” For paper and paper products, postconsumer material means “postconsumer fiber” defined by the U.S. Environmental Protection Agency (EPA) as--

(1) Paper, paperboard, and fibrous materials from retail stores, office buildings, homes, and so forth, after they have passed through their end-usage as a consumer item, including: used corrugated boxes; old newspapers; old magazines; mixed waste paper; tabulating cards; and used cordage; or

(2) All paper, paperboard, and fibrous materials that enter and are collected from municipal solid waste; but not

(3) Fiber derived from printers' over-runs, converters' scrap, and over-issue publications.

“Printed or copied double-sided” means printing or reproducing a document so that information is on both sides of a sheet of paper.

“Recovered material,” for paper and paper products, is defined by EPA in its Comprehensive Procurement Guideline as “recovered fiber” and means the following materials:

- (1) Postconsumer fiber; and
- (2) Manufacturing wastes such as--
  - (i) Dry paper and paperboard waste generated after completion of the papermaking process (that is, those manufacturing operations up to and including the cutting and trimming of the paper machine reel into smaller rolls or rough sheets) including: envelope cuttings, bindery trimmings, and other paper and paperboard waste resulting from printing, cutting, forming, and other converting operations; bag, box, and carton manufacturing wastes; and butt rolls, mill wrappers, and rejected unused stock; and
  - (ii) Repulped finished paper and paperboard from obsolete inventories of paper and paperboard manufacturers, merchants, wholesalers, dealers, printers, converters, or others.
- (b) In accordance with Section 101 of Executive Order 13101 of September 14, 1998, Greening the Government through Waste Prevention, Recycling, and Federal Acquisition, the Contractor is encouraged to submit paper documents, such as offers, letters, or reports, that are printed or copied double-sided on recycled paper that meet minimum content standards specified in Section 505 of Executive Order 13101, when not using electronic commerce methods to submit information or data to the Government.
- (c) If the Contractor cannot purchase high-speed copier paper, offset paper, forms bond, computer printout paper, carbonless paper, file folders, white wove envelopes, writing and office paper, book paper, cotton fiber paper, and cover stock meeting the 30 percent postconsumer material standard for use in submitting paper documents to the Government, it should use paper containing no less than 20 percent postconsumer material. This lesser standard should be used only when paper meeting the 30 percent postconsumer material standard is not obtainable at a reasonable price or does not meet reasonable performance standards.

(End of clause)

#### 52.204-6 DATA UNIVERSAL NUMBERING SYSTEM (DUNS) NUMBER (OCT 2003)

- (a) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS+4” followed by the DUNS number or “DUNS+4” that identifies the offeror's name and address exactly as stated in the offer. The DUNS number is a nine-digit number assigned by Dun and Bradstreet, Inc. The DUNS+4 is the DUNS number plus a 4-character suffix that may be assigned at the discretion of the offeror to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11) for the same parent concern.
- (b) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.
  - (1) An offeror may obtain a DUNS number--
    - (i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or
    - (ii) If located outside the United States, by contacting the local Dun and Bradstreet office.
  - (2) The offeror should be prepared to provide the following information:

- (i) Company legal business name.
- (ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.
- (iii) Company physical street address, city, state and Zip Code.
- (iv) Company mailing address, city, state and Zip Code (if separate from physical).
- (v) Company telephone number.
- (vi) Date the company was started.
- (vii) Number of employees at your location.
- (viii) Chief executive officer/key manager.
- (ix) Line of business (industry).
- (x) Company Headquarters name and address (reporting relationship within your entity).
- (End of provision)

**52.209-6 PROTECTING THE GOVERNMENT'S INTEREST WHEN SUBCONTRACTING WITH CONTRACTORS DEBARRED, SUSPENDED, OR PROPOSED FOR DEBARMENT (JUL 1995)**

- (a) The Government suspends or debar Contractors to protect the Government's interests. The Contractor shall not enter into any subcontract in excess of the \$25,000 with a Contractor that is debarred, suspended, or proposed for debarment unless there is a compelling reason to do so.
- (b) The Contractor shall require each proposed first-tier subcontractor, whose subcontract will exceed \$25,000, to disclose to the Contractor, in writing, whether as of the time of award of the subcontract, the subcontractor, or its principles, is or is not debarred, suspended, or proposed for debarment by the Federal Government.
- (c) A corporate officer or a designee of the Contractor shall notify the Contracting Officer, in writing, before entering into a subcontract with a party that is debarred, suspended, or proposed for debarment (see FAR 9.404 for information on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs). The notice must include the following:
  - (1) The name of the subcontractor.
  - (2) The Contractor's knowledge of the reasons for the subcontractor being on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
  - (3) The compelling reason(s) for doing business with the subcontractor notwithstanding its inclusion on the List of Parties Excluded from Federal Procurement and Nonprocurement Programs.
  - (4) The systems and procedures the Contractor has established to ensure that it is fully protecting the Government's interests when dealing with such subcontractor in view of the specific basis for the party's debarment, suspension, or proposed debarment.

(End of clause)

#### 52.211-13 TIME EXTENSIONS (SEP 2000)

Time extensions for contract changes will depend upon the extent, if any, by which the changes cause delay in the completion of the various elements of construction. The change order granting the time extension may provide that the contract completion date will be extended only for those specific elements related to the changed work and that the remaining contract completion dates for all other portions of the work will not be altered. The change order also may provide an equitable readjustment of liquidated damages under the new completion schedule.

(End of clause)

#### 52.211-18 VARIATION IN ESTIMATED QUANTITY (APR 1984)

If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified.

#### 52.214-26 AUDIT AND RECORDS--SEALED BIDDING. (OCT 1997)

(a) As used in this clause, records includes books, documents, accounting procedures and practices, and other data, regardless of type and regardless of whether such items are in written form, in the form of computer data, or in any other form.

(b) Cost or pricing data. If the Contractor has been required to submit cost or pricing data in connection with the pricing of any modification to this contract, the Contracting Officer, or an authorized representative of the Contracting Officer, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data, shall have the right to examine and audit all of the Contractor's records, including computations and projections, related to--

- (1) The proposal for the modification;
- (2) The discussions conducted on the proposal(s), including those related to negotiating;
- (3) Pricing of the modification; or
- (4) Performance of the modification.

(c) Comptroller General. In the case of pricing any modification, the Comptroller General of the United States, or an authorized representative, shall have the same rights as specified in paragraph (b) of this clause.



(d) Availability. The Contractor shall make available at its office at all reasonable times the materials described in reproduction, until 3 years after final payment under this contract, or for any other period specified in Subpart 4.7 of the Federal Acquisition Regulation (FAR). FAR Subpart 4.7, Contractor Records Retention, in effect on the date of this contract, is incorporated by reference in its entirety and made a part of this contract.

(1) If this contract is completely or partially terminated, the records relating to the work terminated shall be made available for 3 years after any resulting final termination settlement.

(2) Records pertaining to appeals under the Disputes clause or to litigation or the settlement of claims arising under or relating to the performance of this contract shall be made available until disposition of such appeals, litigation, or claims.

(e) The Contractor shall insert a clause containing all the provisions of this clause, including this paragraph (e), in all subcontracts expected to exceed the threshold in FAR 15.403-4(a)(1) for submission of cost or pricing data.

(End of clause)

#### 52.214-27 PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING. (OCT 1997)

(a) This clause shall become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for the submission of cost or pricing data at FAR 15.403-4(a)(1), except that this clause does not apply to a modification if an exception under FAR 15.403-1(b) applies.

(1) Based on adequate price competition;

(2) Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

(3) Set by law or regulation.

(b) If any price, including profit, negotiated in connection with any modification under this clause, was increased by any significant amount because

(1) the Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data;

(2) a subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data; or

(3) any of these parties furnished data of any description that were not accurate, the price shall be reduced accordingly and the contract shall be modified to reflect the reduction. This right to a price reduction is limited to that resulting from defects in data relating to modifications for which this clause becomes operative under paragraph (a) above.

(c) Any reduction in the contract price under paragraph (b) above due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which:

(1) the actual subcontract; or

(2) the actual cost to the Contractor, if there was no subcontract, was less than the prospective subcontract cost estimate submitted by the Contractor; provided, that the actual subcontract price was not itself affected by defective cost or pricing data.

(d) If the Contracting Officer determines under paragraph (b) of this clause that a price or cost reduction should be made:

(1) the Contractor agrees not to raise the following matters as a defense:

(i) The Contractor or subcontractor was a sole source supplier or otherwise was in a superior bargaining position and thus the price of the contract would not have been modified even if accurate, complete, and current cost or pricing data had been submitted;

(ii) The Contracting Officer should have known that the cost or pricing data in issue were defective even though the Contractor or subcontractor took no affirmative action to bring the character of the data to the attention of the Contracting Officer;

(iii) The contract was based on an agreement about the total cost of the contract and there was no agreement about the cost of each item procured under the contract; or

(iv) The Contractor or subcontractor did not submit a Certificate of Current Cost or Pricing Data.

(2) Except as prohibited by subdivision (d)(2)(ii) of this clause:

(i) an offset in an amount determined appropriate by the Contracting Officer based upon the facts shall be allowed against the amount of a contract price reduction if:

(A) The Contractor certifies to the Contracting Officer that, to the best of the Contractor's knowledge and belief, the Contractor is entitled to the offset in the amount requested; and

(B) The Contractor proves that the cost or pricing data were available before the date of agreement on the price of the contract (or price of the modification) and that the data were not submitted before such date.

(ii) An offset shall not be allowed if:

(A) The understated data was known by the Contractor to be understated when the Certificate of Current Cost or Pricing Data was signed; or (B) The Government proves that the facts demonstrate that the contract price would not have increased in the amount to be offset even if the available data had been submitted before the date of agreement on price.

(e) If any reduction in the contract price under this clause reduces the price of items for which payment was made prior to the date of the modification reflecting the price reduction, the Contractor shall be liable to and shall pay the United States at the time such overpayment is repaid:

(1) Simple interest on the amount of such overpayment to be computed from the date(s) of overpayment to the Contractor to the date the Government is repaid by the Contractor at the applicable underpayment rate effective for each quarter prescribed by the Secretary of the Treasury under 26 U.S.C. 6621(a)(2); and

(2) A penalty equal to the amount of the overpayment, if the Contractor or subcontractor knowingly submitted cost or pricing data which were incomplete, inaccurate, or noncurrent.

(End of clause)

## 52.214-28 SUBCONTRACTOR COST OR PRICING DATA - MODIFICATIONS - SEALED BIDDING. (OCT 1997)

(a) The requirements of paragraphs (b) and (c) of this clause shall:

(1) become operative only for any modification to this contract involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at (FAR) 48 CFR 15.403-4(a)(1); and

(2) be limited to such modifications.

(b) Before awarding any subcontract expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1), on the date of agreement on price or the date of award, whichever is later; or before pricing any subcontract modifications involving aggregate increases and/or decreases in costs, plus applicable profits, expected to exceed the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1), the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless an exception under FAR 15.403-1(b) applies.

(1) Based on adequate price competition;

(2) Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

(3) Set by law or regulation.

(c) The Contractor shall require the subcontractor to certify in substantially the form prescribed in subsection 15.406-2 of the Federal Acquisition Regulation that, to the best of its knowledge and belief, the data submitted under paragraph (b) above were accurate, complete, and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

(d) The Contractor shall insert the substance of this clause, including this paragraph (d), in each subcontract that, when entered into, exceeds the threshold for submission of cost or pricing data at FAR 15.403-4(a)(1).

(End of clause)

## 52.219-8 UTILIZATION OF SMALL BUSINESS CONCERNS (OCT 2000)

(a) It is the policy of the United States that small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns shall have the maximum practicable opportunity to participate in performing contracts let by any Federal agency, including contracts and subcontracts for subsystems, assemblies, components, and related services for major systems. It is further the policy of the United States that its prime contractors establish procedures to ensure the timely payment of amounts due pursuant to the terms of their subcontracts with small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, HUBZone small business concerns, small disadvantaged business concerns, and women-owned small business concerns.

(b) The Contractor hereby agrees to carry out this policy in the awarding of subcontracts to the fullest extent consistent with efficient contract performance. The Contractor further agrees to cooperate in any studies or surveys

as may be conducted by the United States Small Business Administration or the awarding agency of the United States as may be necessary to determine the extent of the Contractor's compliance with this clause.

Definitions. As used in this contract--

HUBZone small business concern means a small business concern that appears on the List of Qualified HUBZone Small Business Concerns maintained by the Small Business Administration.

Service-disabled veteran-owned small business concern--

(1) Means a small business concern--

(i) Not less than 51 percent of which is owned by one or more service-disabled veterans or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more service-disabled veterans; and

(ii) The management and daily business operations of which are controlled by one or more service-disabled veterans or, in the case of a veteran with permanent and severe disability, the spouse or permanent caregiver of such veteran.

(2) Service-disabled veteran means a veteran, as defined in 38 U.S.C. 101(2), with a disability that is service-connected, as defined in 38 U.S.C. 101(16).

Small business concern means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto.

Small disadvantaged business concern means a small business concern that represents, as part of its offer that--

(1) It has received certification as a small disadvantaged business concern consistent with 13 CFR part 124, subpart B;

(2) No material change in disadvantaged ownership and control has occurred since its certification;

(3) Where the concern is owned by one or more individuals, the net worth of each individual upon whom the certification is based does not exceed \$750,000 after taking into account the applicable exclusions set forth at 13 CFR 124.104(c)(2); and

(4) It is identified, on the date of its representation, as a certified small disadvantaged business in the database maintained by the Small Business Administration (PRO-Net).

Veteran-owned small business concern means a small business concern--

(1) Not less than 51 percent of which is owned by one or more veterans (as defined at 38 U.S.C. 101(2)) or, in the case of any publicly owned business, not less than 51 percent of the stock of which is owned by one or more veterans; and

(2) The management and daily business operations of which are controlled by one or more veterans.

Women-owned small business concern means a small business concern--

(1) That is at least 51 percent owned by one or more women, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more women; and

(2) Whose management and daily business operations are controlled by one or more women.

(d) Contractors acting in good faith may rely on written representations by their subcontractors regarding their status as a small business concern, a veteran-owned small business concern, a service-disabled veteran-owned small business concern, a HUBZone small business concern, a small disadvantaged business concern, or a women-owned small business concern.

(End of clause)

#### 52.219-9 SMALL BUSINESS SUBCONTRACTING PLAN (JAN 2002)

(a) This clause does not apply to small business concerns.

(b) Definitions. As used in this clause--

Commercial item means a product or service that satisfies the definition of commercial item in section 2.101 of the Federal Acquisition Regulation.

Commercial plan means a subcontracting plan (including goals) that covers the offeror's fiscal year and that applies to the entire production of commercial items sold by either the entire company or a portion thereof (e.g., division, plant, or product line).

Individual contract plan means a subcontracting plan that covers the entire contract period (including option periods), applies to a specific contract, and has goals that are based on the offeror's planned subcontracting in support of the specific contract, except that indirect costs incurred for common or joint purposes may be allocated on a prorated basis to the contract.

Master plan means a subcontracting plan that contains all the required elements of an individual contract plan, except goals, and may be incorporated into individual contract plans, provided the master plan has been approved.

Subcontract means any agreement (other than one involving an employer-employee relationship) entered into by a Federal Government prime Contractor or subcontractor calling for supplies or services required for performance of the contract or subcontract.

(c) The offeror, upon request by the Contracting Officer, shall submit and negotiate a subcontracting plan, where applicable, that separately addresses subcontracting with small business, veteran-owned small business, HUBZone small business concerns, small disadvantaged business, and women-owned small business concerns. If the offeror is submitting an individual contract plan, the plan must separately address subcontracting with small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns, with a separate part for the basic contract and separate parts for each option (if any). The plan shall be included in and made a part of the resultant contract. The subcontracting plan shall be negotiated within the time specified by the Contracting Officer. Failure to submit and negotiate the subcontracting plan shall make the offeror ineligible for award of a contract.

(d) The offeror's subcontracting plan shall include the following:

(1) Goals, expressed in terms of percentages of total planned subcontracting dollars, for the use of small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns as subcontractors. The offeror shall include all subcontracts that contribute to contract performance, and may include a proportionate share of products and services that are normally allocated as indirect costs.

(2) A statement of--

(i) Total dollars planned to be subcontracted for an individual contract plan; or the offeror's total projected sales, expressed in dollars, and the total value of projected subcontracts to support the sales for a commercial plan;

(ii) Total dollars planned to be subcontracted to small business concerns;

(iii) Total dollars planned to be subcontracted to veteran-owned small business concerns;

(iv) Total dollars planned to be subcontracted to HUBZone small business concerns;

(v) Total dollars planned to be subcontracted to small disadvantaged business concerns; and

(vi) Total dollars planned to be subcontracted to women-owned small business concerns.

(3) A description of the principal types of supplies and services to be subcontracted, and an identification of the types planned for subcontracting to--

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(4) A description of the method used to develop the subcontracting goals in paragraph (d)(1) of this clause.

(5) A description of the method used to identify potential sources for solicitation purposes (e.g., existing company source lists, the Procurement Marketing and Access Network (PRO-Net) of the Small Business Administration (SBA), veterans service organizations, the National Minority Purchasing Council Vendor Information Service, the Research and Information Division of the Minority Business Development Agency in the Department of Commerce, or small, HUBZone, small disadvantaged, and women-owned small business trade associations). A firm may rely on the information contained in PRO-Net as an accurate representation of a concern's size and ownership characteristics for the purposes of maintaining a small, veteran-owned small, HUBZone small, small disadvantaged, and women-owned small business source list. Use of PRO-Net as its source list does not relieve a firm of its responsibilities (e.g., outreach, assistance, counseling, or publicizing subcontracting opportunities) in this clause.

(6) A statement as to whether or not the offeror included indirect costs in establishing subcontracting goals, and a description of the method used to determine the proportionate share of indirect costs to be incurred with—

(i) Small business concerns;

(ii) Veteran-owned small business concerns;

(iii) HUBZone small business concerns;

(iv) Small disadvantaged business concerns; and

(v) Women-owned small business concerns.

(7) The name of the individual employed by the offeror who will administer the offeror's subcontracting program, and a description of the duties of the individual.

(8) A description of the efforts the offeror will make to assure that small business, veteran-owned small business, HUBZone small business, small disadvantaged business and women-owned small business concerns have an equitable opportunity to compete for subcontracts.

(9) Assurances that the offeror will include the clause of this contract entitled ``Utilization of Small Business Concerns" in all subcontracts that offer further subcontracting opportunities, and that the offeror will require all subcontractors (except small business concerns) that receive subcontracts in excess of \$500,000 (\$1,000,000 for construction of any public facility) to adopt a subcontracting plan that complies with the requirements of this clause.

(10) Assurances that the offeror will--

(i) Cooperate in any studies or surveys as may be required;

(ii) Submit periodic reports so that the Government can determine the extent of compliance by the offeror with the subcontracting plan;

(iii) Submit Standard Form (SF) 294, Subcontracting Report for Individual Contracts, and/or SF 295, Summary Subcontract Report, in accordance with paragraph (j) of this clause. The reports shall provide information on subcontract awards to small business concerns, veteran-owned small business concerns, service-disabled veteran-owned small business concerns, small disadvantaged business concerns, women-owned small business concerns, and Historically Black Colleges and Universities and Minority Institutions. Reporting shall be in accordance with the instructions on the forms or as provided in agency regulations.

(iv) Ensure that its subcontractors agree to submit SF 294 and SF 295.

(11) A description of the types of records that will be maintained concerning procedures that have been adopted to comply with the requirements and goals in the plan, including establishing source lists; and a description of the offeror's efforts to locate small business, veteran-owned small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns and award subcontracts to them. The records shall include at least the following (on a plant-wide or company-wide basis, unless otherwise indicated)

(i) Source lists (e.g., PRO-Net), guides, and other data that identify small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns.

(ii) Organizations contacted in an attempt to locate sources that are small business, veteran-owned small business, HUBZone small business, small disadvantaged business, or women-owned small business concerns.

(iii) Records on each subcontract solicitation resulting in an award of more than \$100,000, indicating--

(A) Whether small business concerns were solicited and, if not, why not;

(B) Whether veteran-owned small business concerns were solicited and, if not, why not;

(C) Whether HUBZone small business concerns were solicited and, if not, why not;

(D) Whether small disadvantaged business concerns were solicited and, if not, why not;

(E) Whether women-owned small business concerns were solicited and, if not, why not; and

(F) If applicable, the reason award was not made to a small business concern.

(iv) Records of any outreach efforts to contact--

(A) Trade associations;

(B) Business development organizations;

(C) Conferences and trade fairs to locate small, HUBZone small, small disadvantaged, and women-owned small business sources; and

(D) Veterans service organizations.

(v) Records of internal guidance and encouragement provided to buyers through--

(A) Workshops, seminars, training, etc.; and

(B) Monitoring performance to evaluate compliance with the program's requirements.

(vi) On a contract-by-contract basis, records to support award data submitted by the offeror to the Government, including the name, address, and business size of each subcontractor. Contractors having commercial plans need not comply with this requirement.

(e) In order to effectively implement this plan to the extent consistent with efficient contract performance, the Contractor shall perform the following functions:

(1) Assist small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns by arranging solicitations, time for the preparation of bids, quantities, specifications, and delivery schedules so as to facilitate the participation by such concerns. Where the Contractor's lists of potential small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business subcontractors are excessively long, reasonable effort shall be made to give all such small business concerns an opportunity to compete over a period of time.

(2) Provide adequate and timely consideration of the potentialities of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business concerns in all "make-or-buy" decisions.

(3) Counsel and discuss subcontracting opportunities with representatives of small business, veteran-owner small business, HUBZone small business, small disadvantaged business, and women-owned small business firms.

(4) Provide notice to subcontractors concerning penalties and remedies for misrepresentations of business status as small, veteran-owner small business, HUBZone small, small disadvantaged, or women-owned small business for the purpose of obtaining a subcontract that is to be included as part or all of a goal contained in the Contractor's subcontracting plan.

(f) A master plan on a plant or division-wide basis that contains all the elements required by paragraph (d) of this clause, except goals, may be incorporated by reference as a part of the subcontracting plan required of the offeror by this clause; provided--

(1) the master plan has been approved, (2) the offeror ensures that the master plan is updated as necessary and provides copies of the approved master plan, including evidence of its approval, to the Contracting Officer, and (3) goals and any deviations from the master plan deemed necessary by the Contracting Officer to satisfy the requirements of this contract are set forth in the individual subcontracting plan.



(g) A commercial plan is the preferred type of subcontracting plan for contractors furnishing commercial items. The commercial plan shall relate to the offeror's planned subcontracting generally, for both commercial and Government business, rather than solely to the Government contract. Commercial plans are also preferred for subcontractors that provide commercial items under a prime contract, whether or not the prime contractor is supplying a commercial item.

(h) Prior compliance of the offeror with other such subcontracting plans under previous contracts will be considered by the Contracting Officer in determining the responsibility of the offeror for award of the contract.

(i) The failure of the Contractor or subcontractor to comply in good faith with (1) the clause of this contract entitled "Utilization Of Small Business Concerns," or (2) an approved plan required by this clause, shall be a material breach of the contract.

(j) The Contractor shall submit the following reports:

(1) Standard Form 294, Subcontracting Report for Individual Contracts. This report shall be submitted to the Contracting Officer semiannually and at contract completion. The report covers subcontract award data related to this contract. This report is not required for commercial plans.

(2) Standard Form 295, Summary Subcontract Report. This report encompasses all of the contracts with the awarding agency. It must be submitted semi-annually for contracts with the Department of Defense and annually for contracts with civilian agencies. If the reporting activity is covered by a commercial plan, the reporting activity must report annually all subcontract awards under that plan. All reports submitted at the close of each fiscal year (both individual and commercial plans) shall include a breakout, in the Contractor's format, of subcontract awards, in whole dollars, to small disadvantaged business concerns by North American Industry Classification System (NAICS) Industry Subsector. For a commercial plan, the Contractor may obtain from each of its subcontractors a predominant NAICS Industry Subsector and report all awards to that subcontractor under its predominant NAICS Industry Subsector.

(End of clause)

#### 52.222-3 CONVICT LABOR (JUN 2003)

(a) Except as provided in paragraph (b) of this clause, the Contractor shall not employ in the performance of this contract any person undergoing a sentence of imprisonment imposed by any court of a State, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands.

(b) The Contractor is not prohibited from employing persons--

(1) On parole or probation to work at paid employment during the term of their sentence;

(2) Who have been pardoned or who have served their terms; or

(3) Confined for violation of the laws of any of the States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, or the U.S. Virgin Islands who are authorized to work at paid employment in the community under the laws of such jurisdiction, if--

(i) The worker is paid or is in an approved work training program on a voluntary basis;

(ii) Representatives of local union central bodies or similar labor union organizations have been consulted;

(iii) Such paid employment will not result in the displacement of employed workers, or be applied in skills, crafts, or trades in which there is a surplus of available gainful labor in the locality, or impair existing contracts for services;

(iv) The rates of pay and other conditions of employment will not be less than those paid or provided for work of a similar nature in the locality in which the work is being performed; and

(v) The Attorney General of the United States has certified that the work-release laws or **regulations** of the jurisdiction involved are in conformity with the requirements of Executive Order 11755, as amended by Executive Orders 12608 and 12943.

(End of clause)

52.222-4 CONTRACT WORK HOURS AND SAFETY STANDARDS ACT - OVERTIME COMPENSATION. (SEP 2000)

(a) Overtime requirements. No Contractor or subcontractor employing laborers or mechanics (see Federal Acquisition Regulation 22.300) shall require or permit them to work over 40 hours in any workweek unless they are paid at least 1 and 1/2 times the basic rate of pay for each hour worked over 40 hours.

(b) Violation; liability for unpaid wages; liquidated damages. The responsible Contractor and subcontractor are liable for unpaid wages if they violate the terms in paragraph (a) of this clause. In addition, the Contractor and subcontractor are liable for liquidated damages payable to the Government. The Contracting Officer will assess liquidated damages at the rate of \$10 per affected employee for each calendar day on which the employer required or permitted the employee to work in excess of the standard workweek of 40 hours without paying overtime wages required by the Contract Work Hours and Safety Standards Act.

(c) Withholding for unpaid wages and liquidated damages. The Contracting Officer will withhold from payments due under the contract sufficient funds required to satisfy any Contractor or subcontractor liabilities for unpaid wages and liquidated damages. If amounts withheld under the contract are insufficient to satisfy Contractor or subcontractor liabilities, the Contracting Officer will withhold payments from other Federal or Federally assisted contracts held by the same Contractor that are subject to the Contract Work Hours and Safety Standards Act.

(d) Payrolls and basic records.

(1) The Contractor and its subcontractors shall maintain payrolls and basic payroll records for all laborers and mechanics working on the contract during the contract and shall make them available to the Government until 3 years after contract completion. The records shall contain the name and address of each employee, social security number, labor classifications, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. The records need not duplicate those required for construction work by Department of Labor regulations at 29 CFR 5.5(a)(3) implementing the Davis-Bacon Act.

(2) The Contractor and its subcontractors shall allow authorized representatives of the Contracting Officer or the Department of Labor to inspect, copy, or transcribe records maintained under paragraph (d)(1) of this clause. The Contractor or subcontractor also shall allow authorized representatives of the Contracting Officer or Department of Labor to interview employees in the workplace during working hours.

(e) Subcontracts. The Contractor shall insert the provisions set forth in paragraphs (a) through (d) of this clause in subcontracts exceeding \$100,000 and require subcontractors to include these provisions in any lower tier subcontracts. The Contractor shall be responsible for compliance by any subcontractor or lower-tier subcontractor with the provisions set forth in paragraphs (a) through (d) of this clause.

(End of clause)

## 52.222-6 DAVIS-BACON ACT (FEB 1995)

(a) All laborers and mechanics employed or working upon the site of the work will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the Contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph (d) of this clause; also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs which cover the particular weekly period, are deemed to be constructively made or incurred during such period. Such laborers and mechanics shall be paid not less than the appropriate wage rate and fringe benefits in the wage determination for the classification of work actually performed, without regard to skill, except as provided in the clause entitled Apprentices and Trainees. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein; provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph (b) of this clause) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the Contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(b)(1) The Contracting Officer shall require that any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. The Contracting Officer shall approve an additional classification and wage rate and fringe benefits therefor only when all the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination.

(ii) The classification is utilized in the area by the construction industry.

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) If the Contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the Contracting Officer agree on the classification and wage rate (including the amount designated for fringe benefits, where appropriate), a report of the action taken shall be sent by the Contracting Officer to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, DC 20210. The Administrator or an authorized representative will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(3) In the event the Contractor, the laborers or mechanics to be employed in the classification, or their representatives, and the Contracting Officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the Contracting Officer shall refer the questions, including the views of all interested parties and the recommendation of the Contracting Officer, to the Administrator of the Wage and Hour Division for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the Contracting Officer or will notify the Contracting Officer within the 30-day period that additional time is necessary.

(4) The wage rate (including fringe benefits, where appropriate) determined pursuant to subparagraphs (b)(2) and (b)(3) of this clause shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(c) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the Contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(2) If the Contractor does not make payments to a trustee or other third person, the Contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program; provided, That the Secretary of Labor has found, upon the written request of the Contractor, that the applicable standards of the Davis -Bacon Act have been met. The Secretary of Labor may require the Contractor to set aside in a separate account assets for the meeting of obligations under the plan or program.

(End of clause)

#### 52.222-7 WITHHOLDING OF FUNDS (FEB 1988)

The Contracting Officer shall, upon his or her own action or upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the Contractor under this contract or any other Federal contract with the same Prime Contractor, or any other Federally assisted contract subject to Davis -Bacon prevailing wage requirements, which is held by the same Prime Contractor, so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees, and helpers, employed by the Contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee, or helper, employed or working on the site of the work, all or part of the wages required by the contract, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

(End of clause)

#### 52.222-8 PAYROLLS AND BASIC RECORDS (FEB 1988)

(a) Payrolls and basic records relating thereto shall be maintained by the Contractor during the course of the work and preserved for a period of 3 years thereafter for all laborers and mechanics working at the site of the work. Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in section 1(b)(2)(B) of the Davis -Bacon Act), daily and weekly number of hours worked, deductions made, and actual wages paid. Whenever the Secretary of Labor has found, under paragraph (d) of the clause entitled Davis-Bacon Act, that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in section 1(b)(2)(B) of the Davis -Bacon Act, the Contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs.

(b)(1) The Contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to the Contracting Officer. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under paragraph (a) of this clause. This information may be submitted in any form desired. Optional Form WH-347 (Federal Stock Number 029-005-00014-1) is available for this purpose and may be purchased from the Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. The Prime Contractor is responsible for the submission of copies of payrolls by all subcontractors.

(2) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the Contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify--

(i) That the payroll for the payroll period contains the information required to be maintained under paragraph (a) of this clause and that such information is correct and complete;

(ii) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in the Regulations, 29 CFR Part 3; and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(3) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by subparagraph (b)(2) of this clause.

(4) The falsification of any of the certifications in this clause may subject the Contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 3729 of Title 31 of the United States Code.

(c) The Contractor or subcontractor shall make the records required under paragraph (a) of this clause available for inspection, copying, or transcription by the Contracting Officer or authorized representatives of the Contracting Officer or the Department of Labor. The Contractor or subcontractor shall permit the Contracting Officer or representatives of the Contracting Officer or the Department of Labor to interview employees during working hours on the job. If the Contractor or subcontractor fails to submit required records or to make them available, the Contracting Officer may, after written notice to the Contractor, take such action as may be necessary to cause the suspension of any further payment. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR 5.12.

(End of clause)

#### 52.222-9 APPRENTICES AND TRAINEES (FEB 1988)

(a) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The

allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the Contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in this paragraph, shall be paid not less than the applicable wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the Contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the Contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(b) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate in the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate in the wage determination for the classification of work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate in the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the Contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(c) Equal employment opportunity. The utilization of apprentices, trainees, and journeymen under this clause shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

(End of clause)

#### 52.222-10 COMPLIANCE WITH COPELAND ACT REQUIREMENTS (FEB 1988)

The Contractor shall comply with the requirements of 29 CFR Part 3, which are hereby incorporated by reference in this contract.

(End of clause)

## 52.222-11 SUBCONTRACTS (LABOR STANDARDS (FEB 1988)

(a) The Contractor or subcontractor shall insert in any subcontracts the clauses entitled Davis -Bacon Act, Contract Work Hours and Safety Standards Act-Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Withholding of Funds, Subcontracts (Labor Standards), Contract Termination-Debarment, Disputes Concerning Labor Standards, Compliance with Davis -Bacon and Related Act Regulations, and Certification of Eligibility, and such other clauses as the Contracting Officer may, by appropriate instructions, require, and also a clause requiring subcontractors to include these clauses in any lower tier subcontracts. The Prime Contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with all the contract clauses cited in this paragraph.

(b)(1) Within 14 days after award of the contract, the Contractor shall deliver to the Contracting Officer a completed Statement and Acknowledgment Form (SF 1413) for each subcontract, including the subcontractor's signed and dated acknowledgment that the clauses set forth in paragraph (a) of this clause have been included in the subcontract.

(ii) Within 14 days after the award of any subsequently awarded subcontract the Contractor shall deliver to the Contracting Officer an updated completed SF 1413 for such additional subcontract.

(End of clause)

## 52.222-12 CONTRACT TERMINATION--DEBARMENT (FEB 1988)

A breach of the contract clauses entitled Davis -Bacon Act, Contract Work Hours and Safety Standards Act--Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with Copeland Act Requirements, Subcontracts (Labor Standards), Compliance with Davis -Bacon and Related Act Regulations, or Certification of Eligibility may be grounds for termination of the contract, and for debarment as a Contractor and subcontractor as provided in 29 CFR 5.12.

(End of clause)

## 52.222-13 COMPLIANCE WITH DAVIS-BACON AND RELATED ACT REGULATIONS (FEB 1988)

All rulings and interpretations of the Davis -Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are hereby incorporated by reference in this contract.

(End of clause)

## 52.222-14 DISPUTES CONCERNING LABOR STANDARDS (FEB 1988)

The United States Department of Labor has set forth in 29 CFR Parts 5, 6, and 7 procedures for resolving disputes concerning labor standards requirements. Such disputes shall be resolved in accordance with those procedures and not the Disputes clause of this contract. Disputes within the meaning of this clause include disputes between the Contractor (or any of its subcontractors) and the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

(End of clause)

52.222-15 CERTIFICATION OF ELIGIBILITY (FEB 1988)

(a) By entering into this contract, the Contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the Contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of section 3(a) of the Davis -Bacon Act or 29 CFR 5.12(a)(1).

(b) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1).

(3) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001.

(End of clause)

52.222-26 EQUAL OPPORTUNITY (APR 2002)

(a) Definition. United States, as used in this clause, means the 50 States, the District of Columbia, Puerto Rico, the Northern Mariana Islands, American Samoa, Guam, the U.S. Virgin Islands, and Wake Island.

(b) If, during any 12-month period (including the 12 months preceding the award of this contract), the Contractor has been or is awarded nonexempt Federal contracts and/or subcontracts that have an aggregate value in excess of \$10,000, the Contractor shall comply with paragraphs (b)(1) through (b)(11) of this clause, except for work performed outside the United States by employees who were not recruited within the United States. Upon request, the Contractor shall provide information necessary to determine the applicability of this clause.

(1) The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. However, it shall not be a violation of this clause for the Contractor to extend a publicly announced preference in employment to Indians living on or near an Indian reservation, in connection with employment opportunities on or near an Indian reservation, as permitted by 41 CFR 60-1.5.

(2) The Contractor shall take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. This shall include, but not be limited to, (i) employment, (ii) upgrading, (iii) demotion, (iv) transfer, (v) recruitment or recruitment advertising, (vi) layoff or termination, (vii) rates of pay or other forms of compensation, and (viii) selection for training, including apprenticeship.

(3) The Contractor shall post in conspicuous places available to employees and applicants for employment the notices to be provided by the Contracting Officer that explain this clause.

(4) The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, or national origin.

(5) The Contractor shall send, to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding, the notice to be provided by the Contracting Officer advising the labor union or workers' representative of the Contractor's commitments under this clause, and post copies of the notice in conspicuous places available to employees and applicants for employment.



(6) The Contractor shall comply with Executive Order 11246, as amended, and the rules, regulations, and orders of the Secretary of Labor.

(7) The Contractor shall furnish to the contracting agency all information required by Executive Order 11246, as amended, and by the rules, regulations, and orders of the Secretary of Labor. The Contractor shall also file Standard Form 100 (EEO-1), or any successor form, as prescribed in 41 CFR part 60-1. Unless the Contractor has filed within the 12 months preceding the date of contract award, the Contractor shall, within 30 days after contract award, apply to either the regional Office of Federal Contract Compliance Programs (OFCCP) or the local office of the Equal Employment Opportunity Commission for the necessary forms.

(8) The Contractor shall permit access to its premises, during normal business hours, by the contracting agency or the OFCCP for the purpose of conducting on-site compliance evaluations and complaint investigations. The Contractor shall permit the Government to inspect and copy any books, accounts, records (including computerized records), and other material that may be relevant to the matter under investigation and pertinent to compliance with Executive Order 11246, as amended, and rules and regulations that implement the Executive Order.

(9) If the OFCCP determines that the Contractor is not in compliance with this clause or any rule, regulation, or order of the Secretary of Labor, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further Government contracts, under the procedures authorized in Executive Order 11246, as amended. In addition, sanctions may be imposed and remedies invoked against the Contractor as provided in Executive Order 11246, as amended; in the rules, regulations, and orders of the Secretary of Labor; or as otherwise provided by law.

(10) The Contractor shall include the terms and conditions of subparagraphs (b)(1) through (11) of this clause in every subcontract or purchase order that is not exempted by the rules, regulations, or orders of the Secretary of Labor issued under Executive Order 11246, as amended, so that these terms and conditions will be binding upon each subcontractor or vendor.

(11) The Contractor shall take such action with respect to any subcontract or purchase order as the contracting officer may direct as a means of enforcing these terms and conditions, including sanctions for noncompliance; provided, that if the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of any direction, the Contractor may request the United States to enter into the litigation to protect the interests of the United States.

(c) Notwithstanding any other clause in this contract, disputes relative to this clause will be governed by the procedures in 41 CFR 60-1.1.

(End of clause)

#### 52.222-27 AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION (FEB 1999)

(a) Definitions. "Covered area," as used in this clause, means the geographical area described in the solicitation for this contract.

"Deputy Assistant Secretary," as used in this clause, means Deputy Assistant Secretary for Federal Contract Compliance, U.S. Department of Labor, or a designee.

"Employer's identification number," as used in this clause, means the Federal Social Security number used on the employer's quarterly federal tax return, U.S. Treasury Department Form 941.

"Minority," as used in this clause, means--

(1) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

(2) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, Southeast Asia, the Indian Subcontinent, or the Pacific Islands);

(3) Black (all persons having origins in any of the black African racial groups not of Hispanic origin); and

(4) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race).

(b) If the Contractor, or a subcontractor at any tier, subcontracts a portion of the work involving any construction trade, each such subcontract in excess of \$10,000 shall include this clause and the Notice containing the goals for minority and female participation stated in the solicitation for this contract.

(c) If the Contractor is participating in a Hometown Plan (41 CFR 60-4) approved by the U.S. Department of Labor in a covered area, either individually or through an association, its affirmative action obligations on all work in the plan area (including goals) shall comply with the plan for those trades that have unions participating in the plan. Contractors must be able to demonstrate participation in, and compliance with, the provisions of the plan. Each Contractor or subcontractor participating in an approved plan is also required to comply with its obligations under the Equal Opportunity clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good-faith performance by other Contractors or subcontractors toward a goal in an approved plan does not excuse any Contractor's or subcontractor's failure to make good-faith efforts to achieve the plan's goals.

(d) The Contractor shall implement the affirmative action procedures in subparagraphs (g)(1) through (16) of this clause. The goals stated in the solicitation for this contract are expressed as percentages of the total hours of employment and training of minority and female utilization that the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. If the Contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for the geographical area where that work is actually performed. The Contractor is expected to make substantially uniform progress toward its goals in each craft.

(e) Neither the terms and conditions of any collective bargaining agreement, nor the failure by a union with which the Contractor has a collective bargaining agreement, to refer minorities or women shall excuse the Contractor's obligations under this clause, Executive Order 11246, as amended, or the regulations thereunder.

(f) In order for the nonworking training hours of apprentices and trainees to be counted in meeting the goals, apprentices and trainees must be employed by the Contractor during the training period, and the Contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.

(g) The Contractor shall take affirmative action to ensure equal employment opportunity. The evaluation of the Contractor's compliance with this clause shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and implement affirmative action steps at least as extensive as the following:

(1) Ensure a working environment free of harassment, intimidation, and coercion at all sites and in all facilities where the Contractor's employees are assigned to work. The Contractor, if possible, will assign two or more women to each construction project. The Contractor shall ensure that foremen, superintendents, and other onsite supervisory

personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority or female individuals working at these sites or facilities.

(2) Establish and maintain a current list of sources for minority and female recruitment. Provide written notification to minority and female recruitment sources and community organizations when the Contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.

(3) Establish and maintain a current file of the names, addresses, and telephone numbers of each minority and female off-the-street applicant, referrals of minorities or females from unions, recruitment sources, or community organizations, and the action taken with respect to each individual. If an individual was sent to the union hiring hall for referral and not referred back to the Contractor by the union or, if referred back, not employed by the Contractor, this shall be documented in the file, along with whatever additional actions the Contractor may have taken.

(4) Immediately notify the Deputy Assistant Secretary when the union or unions with which the Contractor has a collective bargaining agreement has not referred back to the Contractor a minority or woman sent by the Contractor, or when the Contractor has other information that the union referral process has impeded the Contractor's efforts to meet its obligations.

(5) Develop on-the-job training opportunities and/or participate in training programs for the area that expressly include minorities and women, including upgrading programs and apprenticeship and trainee programs relevant to the Contractor's employment needs, especially those programs funded or approved by the Department of Labor. The Contractor shall provide notice of these programs to the sources compiled under subparagraph (g)(2) of this clause.

(6) Disseminate the Contractor's equal employment policy by--

(i) Providing notice of the policy to unions and to training, recruitment, and outreach programs, and requesting their cooperation in assisting the Contractor in meeting its contract obligations;

(ii) Including the policy in any policy manual and in collective bargaining agreements;

(iii) Publicizing the policy in the company newspaper, annual report, etc.;

(iv) Reviewing the policy with all management personnel and with all minority and female employees at least once a year; and

(v) Posting the policy on bulletin boards accessible to employees at each location where construction work is performed.

(7) Review, at least annually, the Contractor's equal employment policy and affirmative action obligations with all employees having responsibility for hiring, assignment, layoff, termination, or other employment decisions. Conduct review of this policy with all on-site supervisory personnel before initiating construction work at a job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.

(8) Disseminate the Contractor's equal employment policy externally by including it in any advertising in the news media, specifically including minority and female news media. Provide written notification to, and discuss this policy with, other Contractors and subcontractors with which the Contractor does or anticipates doing business.

(9) Direct recruitment efforts, both oral and written, to minority, female, and community organizations, to schools with minority and female students, and to minority and female recruitment and training organizations serving the Contractor's recruitment area and employment needs. Not later than 1 month before the date for acceptance of applications for apprenticeship or training by any recruitment source, send written notification to organizations such

as the above, describing the openings, screening procedures, and tests to be used in the selection process.

(10) Encourage present minority and female employees to recruit minority persons and women. Where reasonable, provide after-school, summer, and vacation employment to minority and female youth both on the site and in other areas of the Contractor's workforce.

(11) Validate all tests and other selection requirements where required under 41 CFR 60-3.

(12) Conduct, at least annually, an inventory and evaluation at least of all minority and female personnel for promotional opportunities. Encourage these employees to seek or to prepare for, through appropriate training, etc., opportunities for promotion.

(13) Ensure that seniority practices, job classifications, work assignments, and other personnel practices do not have a discriminatory effect by continually monitoring all personnel and employment-related activities to ensure that the Contractor's obligations under this contract are being carried out.

(14) Ensure that all facilities and company activities are nonsegregated except that separate or single-user rest rooms and necessary dressing or sleeping areas shall be provided to assure privacy between the sexes.

(15) Maintain a record of solicitations for subcontracts for minority and female construction contractors and suppliers, including circulation of solicitations to minority and female contractor associations and other business associations.

(16) Conduct a review, at least annually, of all supervisors' adherence to and performance under the Contractor's equal employment policy and affirmative action obligations.

(h) The Contractor is encouraged to participate in voluntary associations that may assist in fulfilling one or more of the affirmative action obligations contained in subparagraphs (g)(1) through (16) of this clause. The efforts of a contractor association, joint contractor-union, contractor-community, or similar group of which the contractor is a member and participant may be asserted as fulfilling one or more of its obligations under subparagraphs (g)(1) through (16) of this clause, provided the Contractor--

(1) Actively participates in the group;

(2) Makes every effort to ensure that the group has a positive impact on the employment of minorities and women in the industry;

(3) Ensures that concrete benefits of the program are reflected in the Contractor's minority and female workforce participation;

(4) Makes a good-faith effort to meet its individual goals and timetables; and

(5) Can provide access to documentation that demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply is the Contractor's, and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.

(i) A single goal for minorities and a separate single goal for women shall be established. The Contractor is required to provide equal employment opportunity and to take affirmative action for all minority groups, both male and female, and all women, both minority and nonminority. Consequently, the Contractor may be in violation of Executive Order 11246, as amended, if a particular group is employed in a substantially disparate manner.

(j) The Contractor shall not use goals or affirmative action standards to discriminate against any person because of race, color, religion, sex, or national origin.

(k) The Contractor shall not enter into any subcontract with any person or firm debarred from Government contracts under Executive Order 11246, as amended.

(l) The Contractor shall carry out such sanctions and penalties for violation of this clause and of the Equal Opportunity clause, including suspension, termination, and cancellation of existing subcontracts, as may be imposed or ordered under Executive Order 11246, as amended, and its implementing regulations, by the OFCCP. Any failure to carry out these sanctions and penalties as ordered shall be a violation of this clause and Executive Order 11246, as amended.

(m) The Contractor in fulfilling its obligations under this clause shall implement affirmative action procedures at least as extensive as those prescribed in paragraph (g) of this clause, so as to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of Executive Order 11246, as amended, the implementing regulations, or this clause, the Deputy Assistant Secretary shall take action as prescribed in 41 CFR 60-4.8.

(n) The Contractor shall designate a responsible official to--

(1) Monitor all employment-related activity to ensure that the Contractor's equal employment policy is being carried out;

(2) Submit reports as may be required by the Government; and

(3) Keep records that shall at least include for each employee the name, address, telephone number, construction trade, union affiliation (if any), employee identification number, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, separate records are not required to be maintained.

Nothing contained herein shall be construed as a limitation upon the application of other laws that establish different standards of compliance or upon the requirements for the hiring of local or other area residents (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

(End of clause)

#### 52.222-35 EQUAL OPPORTUNITY FOR SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Definitions. As used in this clause--

All employment openings means all positions except executive and top management, those positions that will be filled from within the Contractor's organization, and positions lasting 3 days or less. This term includes full-time employment, temporary employment of more than 3 days duration, and part-time employment.

Executive and top management means any employee--

(1) Whose primary duty consists of the management of the enterprise in which the individual is employed or of a customarily recognized department or subdivision thereof;

(2) Who customarily and regularly directs the work of two or more other employees;

(3) Who has the authority to hire or fire other employees or whose suggestions and recommendations as to the hiring or firing and as to the advancement and promotion or any other change of status of other employees will be given particular weight;

(4) Who customarily and regularly exercises discretionary powers; and

(5) Who does not devote more than 20 percent or, in the case of an employee of a retail or service establishment, who does not devote more than 40 percent of total hours of work in the work week to activities that are not directly and closely related to the performance of the work described in paragraphs (1) through (4) of this definition. This paragraph (5) does not apply in the case of an employee who is in sole charge of an establishment or a physically separated branch establishment, or who owns at least a 20 percent interest in the enterprise in which the individual is employed.

Other eligible veteran means any other veteran who served on active duty during a war or in a campaign or expedition for which a campaign badge has been authorized.

Positions that will be filled from within the Contractor's organization means employment openings for which the Contractor will give no consideration to persons outside the Contractor's organization (including any affiliates, subsidiaries, and parent companies) and includes any openings the Contractor proposes to fill from regularly established "recall" lists. The exception does not apply to a particular opening once an employer decides to consider applicants outside of its organization.

Qualified special disabled veteran means a special disabled veteran who satisfies the requisite skill, experience, education, and other job-related requirements of the employment position such veteran holds or desires, and who, with or without reasonable accommodation, can perform the essential functions of such position.

Special disabled veteran means--

(1) A veteran who is entitled to compensation (or who but for the receipt of military retired pay would be entitled to compensation) under laws administered by the Department of Veterans Affairs for a disability--

(i) Rated at 30 percent or more; or

(ii) Rated at 10 or 20 percent in the case of a veteran who has been determined under 38 U.S.C. 3106 to have a serious employment handicap (i.e., a significant impairment of the veteran's ability to prepare for, obtain, or retain employment consistent with the veteran's abilities, aptitudes, and interests); or

(2) A person who was discharged or released from active duty because of a service-connected disability.

Veteran of the Vietnam era means a person who--

(1) Served on active duty for a period of more than 180 days and was discharged or released from active duty with other than a dishonorable discharge, if any part of such active duty occurred--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases; or

(2) Was discharged or released from active duty for a service-connected disability if any part of the active duty was performed--

(i) In the Republic of Vietnam between February 28, 1961, and May 7, 1975; or

(ii) Between August 5, 1964, and May 7, 1975, in all other cases.

(b) General. (1) The Contractor shall not discriminate against the individual because the individual is a special disabled veteran, a veteran of the Vietnam era, or other eligible veteran, regarding any position for which the employee or applicant for employment is qualified. The Contractor shall take affirmative action to employ, advance in employment, and otherwise treat qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans without discrimination based upon their disability or veterans' status in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff and rehiring;

(iii) Rate of pay or any other form of compensation and changes in compensation;

(iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;

(v) Leaves of absence, sick leave, or any other leave;

(vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;

(vii) Selection and financial support for training, including apprenticeship, and on-the-job training under 38 U.S.C. 3687, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;

(viii) Activities sponsored by the Contractor including social or recreational programs; and

(ix) Any other term, condition, or privilege of employment.

(2) The Contractor shall comply with the rules, regulations, and relevant orders of the Secretary of Labor issued under the Vietnam Era Veterans' Readjustment Assistance Act of 1972 (the Act), as amended (38 U.S.C. 4211 and 4212).

(c) Listing openings. (1) The Contractor shall immediately list all employment openings that exist at the time of the execution of this contract and those which occur during the performance of this contract, including those not generated by this contract, and including those occurring at an establishment of the Contractor other than the one where the contract is being performed, but excluding those of independently operated corporate affiliates, at an appropriate local public employment service office of the State wherein the opening occurs. Listing employment openings with the U.S. Department of Labor's America's Job Bank shall satisfy the requirement to list jobs with the local employment service office.

(2) The Contractor shall make the listing of employment openings with the local employment service office at least concurrently with using any other recruitment source or effort and shall involve the normal obligations of placing a bona fide job order, including accepting referrals of veterans and nonveterans. This listing of employment openings does not require hiring any particular job applicant or hiring from any particular group of job applicants and is not intended to relieve the Contractor from any requirements of Executive orders or regulations concerning nondiscrimination in employment.

(3) Whenever the Contractor becomes contractually bound to the listing terms of this clause, it shall advise the State public employment agency in each State where it has establishments of the name and location of each hiring location in the State. As long as the Contractor is contractually bound to these terms and has so advised the State agency, it

need not advise the State agency of subsequent contracts. The Contractor may advise the State agency when it is no longer bound by this contract clause.

(d) Applicability. This clause does not apply to the listing of employment openings that occur and are filled outside the 50 States, the District of Columbia, the Commonwealth of Puerto Rico, the Commonwealth of the Northern Mariana Islands, American Samoa, Guam, the Virgin Islands of the United States, and Wake Island.

(e) Postings. (1) The Contractor shall post employment notices in conspicuous places that are available to employees and applicants for employment.

(2) The employment notices shall--

(i) State the rights of applicants and employees as well as the Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified employees and applicants who are special disabled veterans, veterans of the Vietnam era, and other eligible veterans; and

(ii) Be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance Programs, Department of Labor (Deputy Assistant Secretary of Labor), and provided by or through the Contracting Officer.

(3) The Contractor shall ensure that applicants or employees who are special disabled veterans are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled veteran, or may lower the posted notice so that it can be read by a person in a wheelchair).

(4) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement, or other contract understanding, that the Contractor is bound by the terms of the Act and is committed to take affirmative action to employ, and advance in employment, qualified special disabled veterans, veterans of the Vietnam era, and other eligible veterans.

(f) Noncompliance. If the Contractor does not comply with the requirements of this clause, the Government may take appropriate actions under the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.

(g) Subcontracts. The Contractor shall insert the terms of this clause in all subcontracts or purchase orders of \$25,000 or more unless exempted by rules, regulations, or orders of the Secretary of Labor. The Contractor shall act as specified by the Deputy Assistant Secretary of Labor to enforce the terms, including action for noncompliance.

(End of clause)

#### 52.222-36 AFFIRMATIVE ACTION FOR WORKERS WITH DISABILITIES (JUN 1998)

(a) General. (1) Regarding any position for which the employee or applicant for employment is qualified, the Contractor shall not discriminate against any employee or applicant because of physical or mental disability. The Contractor agrees to take affirmative action to employ, advance in employment, and otherwise treat qualified individuals with disabilities without discrimination based upon their physical or mental disability in all employment practices such as--

(i) Recruitment, advertising, and job application procedures;

(ii) Hiring, upgrading, promotion, award of tenure, demotion, transfer, layoff, termination, right of return from layoff, and rehiring;



- (iii) Rates of pay or any other form of compensation and changes in compensation;
- (iv) Job assignments, job classifications, organizational structures, position descriptions, lines of progression, and seniority lists;
- (v) Leaves of absence, sick leave, or any other leave;
- (vi) Fringe benefits available by virtue of employment, whether or not administered by the Contractor;
- (vii) Selection and financial support for training, including apprenticeships, professional meetings, conferences, and other related activities, and selection for leaves of absence to pursue training;
- (viii) Activities sponsored by the Contractor, including social or recreational programs; and
- (ix) Any other term, condition, or privilege of employment.

(2) The Contractor agrees to comply with the rules, regulations, and relevant orders of the Secretary of Labor (Secretary) issued under the Rehabilitation Act of 1973 (29 U.S.C. 793) (the Act), as amended.

(b) Postings. (1) The Contractor agrees to post employment notices stating--

(i) The Contractor's obligation under the law to take affirmative action to employ and advance in employment qualified individuals with disabilities; and

(ii) The rights of applicants and employees.

(2) These notices shall be posted in conspicuous places that are available to employees and applicants for employment. The Contractor shall ensure that applicants and employees with disabilities are informed of the contents of the notice (e.g., the Contractor may have the notice read to a visually disabled individual, or may lower the posted notice so that it might be read by a person in a wheelchair). The notices shall be in a form prescribed by the Deputy Assistant Secretary for Federal Contract Compliance of the U.S. Department of Labor (Deputy Assistant Secretary) and shall be provided by or through the Contracting Officer.

(3) The Contractor shall notify each labor union or representative of workers with which it has a collective bargaining agreement or other contract understanding, that the Contractor is bound by the terms of Section 503 of the Act and is committed to take affirmative action to employ, and advance in employment, qualified individuals with physical or mental disabilities.

(c) Noncompliance. If the Contractor does not comply with the requirements of this clause, appropriate actions may be taken under the rules, regulations, and relevant orders of the Secretary issued pursuant to the Act.

(d) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order in excess of \$10,000 unless exempted by rules, regulations, or orders of the Secretary. The Contractor shall act as specified by the Deputy Assistant Secretary to enforce the terms, including action for noncompliance.

(End of clause)

#### 52.222-37 EMPLOYMENT REPORTS ON SPECIAL DISABLED VETERANS, VETERANS OF THE VIETNAM ERA, AND OTHER ELIGIBLE VETERANS (DEC 2001)

(a) Unless the Contractor is a State or local government agency, the Contractor shall report at least annually, as required by the Secretary of Labor, on--

(1) The number of disabled veterans and the number of veterans of the Vietnam era in the workforce of the contractor by job category and hiring location; and

(2) The total number of new employees hired during the period covered by the report, and of that total, the number of disabled veterans, and the number of veterans of the Vietnam era.

(b) The above items shall be reported by completing the form entitled "Federal Contractor Veterans' Employment Report VETS-100."

(c) Reports shall be submitted no later than September 30 of each year beginning September 30, 1988.

(d) The employment activity report required by paragraph (a)(2) of this clause shall reflect total hires during the most recent 12-month period as of the ending date selected for the employment profile report required by paragraph (a)(1) of this clause. Contractors may select an ending date: (1) As of the end of any pay period during the period January through March 1st of the year the report is due, or (2) as of December 31, if the contractor has previous written approval from the Equal Employment Opportunity Commission to do so for purposes of submitting the Employer Information Report EEO-1 (Standard Form 100).

(e) The count of veterans reported according to paragraph (a) of this clause shall be based on voluntary disclosure. Each Contractor subject to the reporting requirements at 38 U.S.C. 4212 shall invite all disabled veterans and veterans of the Vietnam era who wish to benefit under the affirmative action program at 38 U.S.C. 4212 to identify themselves to the Contractor. The invitation shall state that the information is voluntarily provided; that the information will be kept confidential; that disclosure or refusal to provide the information will not subject the applicant or employee to any adverse treatment; and that the information will be used only in accordance with the regulations promulgated under 38 U.S.C. 4212.

(f) Subcontracts. The Contractor shall include the terms of this clause in every subcontract or purchase order of \$10,000 or more unless exempted by rules, regulations, or orders of the Secretary.

(End of clause)

#### 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material	Identification No.
(If none, insert "None")	
_____	
_____	
_____	

(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

#### 52.223-3 HAZARDOUS MATERIAL IDENTIFICATION AND MATERIAL SAFETY DATA (JAN 1997)

(a) "Hazardous material", as used in this clause, includes any material defined as hazardous under the latest version of Federal Standard No. 313 (including revisions adopted during the term of the contract).

(b) The offeror must list any hazardous material, as defined in paragraph (a) of this clause, to be delivered under this contract. The hazardous material shall be properly identified and include any applicable identification number, such as National Stock Number or Special Item Number. This information shall also be included on the Material Safety Data Sheet submitted under this contract.

Material	Identification No.
(If none,	

insert "None")

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(c) This list must be updated during performance of the contract whenever the Contractor determines that any other material to be delivered under this contract is hazardous.

(d) The apparently successful offeror agrees to submit, for each item as required prior to award, a Material Safety Data Sheet, meeting the requirements of 29 CFR 1910.1200(g) and the latest version of Federal Standard No. 313, for all hazardous material identified in paragraph (b) of this clause. Data shall be submitted in accordance with Federal Standard No. 313, whether or not the apparently successful offeror is the actual manufacturer of these items. Failure to submit the Material Safety Data Sheet prior to award may result in the apparently successful offeror being considered nonresponsible and ineligible for award.

(e) If, after award, there is a change in the composition of the item(s) or a revision to Federal Standard No. 313, which renders incomplete or inaccurate the data submitted under paragraph (d) of this clause, the Contractor shall promptly notify the Contracting Officer and resubmit the data.

(f) Neither the requirements of this clause nor any act or failure to act by the Government shall relieve the Contractor of any responsibility or liability for the safety of Government, Contractor, or subcontractor personnel or property.

(g) Nothing contained in this clause shall relieve the Contractor from complying with applicable Federal, State, and local laws, codes, ordinances, and regulations (including the obtaining of licenses and permits) in connection with hazardous material.

(h) The Government's rights in data furnished under this contract with respect to hazardous material are as follows:

(1) To use, duplicate and disclose any data to which this clause is applicable. The purposes of this right are to--

(i) Apprise personnel of the hazards to which they may be exposed in using, handling, packaging, transporting, or disposing of hazardous materials;

(ii) Obtain medical treatment for those affected by the material; and

(iii) Have others use, duplicate, and disclose the data for the Government for these purposes.

(2) To use, duplicate, and disclose data furnished under this clause, in accordance with subparagraph (h)(1) of this clause, in precedence over any other clause of this contract providing for rights in data.

(3) The Government is not precluded from using similar or identical data acquired from other sources.

(End of clause)

#### 52.223-6 DRUG-FREE WORKPLACE (MAY 2001)

(a) Definitions. As used in this clause --

"Controlled substance" means a controlled substance in schedules I through V of section 202 of the Controlled

Substances Act (21 U.S.C. 812) and as further defined in regulation at 21 CFR 1308.11 - 1308.15.

"Conviction" means a finding of guilt (including a plea of nolo contendere) or imposition of sentence, or both, by any judicial body charged with the responsibility to determine violations of the Federal or State criminal drug statutes.

"Criminal drug statute" means a Federal or non-Federal criminal statute involving the manufacture, distribution, dispensing, possession, or use of any controlled substance.

"Drug-free workplace" means the site(s) for the performance of work done by the Contractor in connection with a specific contract at which employees of the Contractor are prohibited from engaging in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance.

"Employee" means an employee of a Contractor directly engaged in the performance of work under a Government contract. "Directly engaged" is defined to include all direct cost employees and any other Contractor employee who has other than a minimal impact or involvement in contract performance.

"Individual" means an offeror/contractor that has no more than one employee including the offeror/contractor.

(b) The Contractor, if other than an individual, shall-- within 30 days after award (unless a longer period is agreed to in writing for contracts of 30 days or more performance duration), or as soon as possible for contracts of less than 30 days performance duration--

(1) Publish a statement notifying its employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the Contractor's workplace and specifying the actions that will be taken against employees for violations of such prohibition;

(2) Establish an ongoing drug-free awareness program to inform such employees about--

(i) The dangers of drug abuse in the workplace;

(ii) The Contractor's policy of maintaining a drug-free workplace;

(iii) Any available drug counseling, rehabilitation, and employee assistance programs; and

(iv) The penalties that may be imposed upon employees for drug abuse violations occurring in the workplace;

(3) Provide all employees engaged in performance of the contract with a copy of the statement required by subparagraph (b)(1) of this clause;

(4) Notify such employees in writing in the statement required by subparagraph (b)(1) of this clause that, as a condition of continued employment on this contract, the employee will--

(i) Abide by the terms of the statement; and

(ii) Notify the employer in writing of the employee's conviction under a criminal drug statute for a violation occurring in the workplace no later than 5 days after such conviction.

(5) Notify the Contracting Officer in writing within 10 days after receiving notice under subdivision (b)(4)(ii) of this clause, from an employee or otherwise receiving actual notice of such conviction. The notice shall include the position title of the employee;

(6) Within 30 days after receiving notice under subdivision (b)(4)(ii) of this clause of a conviction, take one of the following actions with respect to any employee who is convicted of a drug abuse violation occurring in the

workplace:

- (i) Taking appropriate personnel action against such employee, up to and including termination; or
  - (ii) Require such employee to satisfactorily participate in a drug abuse assistance or rehabilitation program approved for such purposes by a Federal, State, or local health, law enforcement, or other appropriate agency; and
- (7) Make a good faith effort to maintain a drug-free workplace through implementation of subparagraphs (b)(1) through (b)(6) of this clause.
- (c) The Contractor, if an individual, agrees by award of the contract or acceptance of a purchase order, not to engage in the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance while performing this contract.
- (d) In addition to other remedies available to the Government, the Contractor's failure to comply with the requirements of paragraph (b) or (c) of this clause may, pursuant to FAR 23.506, render the Contractor subject to suspension of contract payments, termination of the contract for default, and suspension or debarment.

(End of clause)

#### 52.223-14 TOXIC CHEMICAL RELEASE REPORTING (AUG 2003)

- (a) Unless otherwise exempt, the Contractor, as owner or operator of a facility used in the performance of this contract, shall file by July 1 for the prior calendar year an annual Toxic Chemical Release Inventory Form (Form R) as described in sections 313(a) and (g) of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA) (42 U.S.C. 11023(a) and (g)), and section 6607 of the Pollution Prevention Act of 1990 (PPA) (42 U.S.C. 13106). The Contractor shall file, for each facility subject to the Form R filing and reporting requirements, the annual Form R throughout the life of the contract.
- (b) A Contractor-owned or -operated facility used in the performance of this contract is exempt from the requirement to file an annual Form R if--
- (1) The facility does not manufacture, process, or otherwise use any toxic chemicals listed in 40 CFR 372.65;
  - (2) The facility does not have 10 or more full-time employees as specified in section 313(b)(1)(A) of EPCRA, 42 U.S.C. 11023(b)(1)(A);
  - (3) The facility does not meet the reporting thresholds of toxic chemicals established under of EPCRA, 42 U.S.C. 11023(f) (including the alternate thresholds at 40 CFR 372.27, provided an appropriate certification form has been filed with EPA);
  - (4) The facility does not fall within the following Standard Industrial Classification (SIC) codes or their corresponding North American Industry Classification System sectors:
    - (i) Major group code 10 (except 1011, 1081, and 1094.
    - (ii) Major group code 12 (except 1241).
    - (iii) Major group codes 20 through 39.
    - (iv) Industry code 4911, 4931, or 4939 (limited to facilities that combust coal and/or oil for the purpose of generating power for distribution in commerce).

(v) Industry code 4953 (limited to facilities regulated under the Resource Conservation and Recovery Act, Subtitle C (42 U.S.C. 6921, et seq.)), 5169, 5171, or 7389 (limited to facilities primarily engaged in solvent recovery services on a contract or fee basis); or

(5) The facility is not located in the United States or its outlying areas.

(c) If the Contractor has certified to an exemption in accordance with one or more of the criteria in paragraph (b) of this clause, and after award of the contract circumstances change so that any of its owned or operated facilities used in the performance of this contract is no longer exempt--

(1) The Contractor shall notify the Contracting Officer; and

(2) The Contractor, as owner or operator of a facility used in the performance of this contract that is no longer exempt, shall (i) submit a Toxic Chemical Release Inventory Form (Form R) on or before July 1 for the prior calendar year during which the facility becomes eligible; and (ii) continue to file the annual Form R for the life of the contract for such facility.

(d) The Contracting Officer may terminate this contract or take other action as appropriate, if the Contractor fails to comply accurately and fully with the EPCRA and PPA toxic chemical release filing and reporting requirements.

(e) Except for acquisitions of commercial items, as defined in FAR Part 2, the Contractor shall--

(1) For competitive subcontracts expected to exceed \$100,000 (including all options), include a solicitation provision substantially the same as the provision at FAR 52.223-13, Certification of Toxic Chemical Release Reporting; and

(2) Include in any resultant subcontract exceeding \$100,000 (including all options), the substance of this clause, except this paragraph (e).

(End of clause)

#### 52.225-5 TRADE AGREEMENTS (JAN 2004)

(a) Definitions. As used in this clause.

Caribbean Basin country means any of the following countries: Antigua and Barbuda, Aruba, Bahamas, Barbados, Belize, British Virgin Islands, Costa Rica, Dominica, Dominican Republic, El Salvador, Grenada, Guatemala, Guyana, Haiti, Jamaica, Montserrat, Netherlands Antilles, Nicaragua, Panama, St. Kitts and Nevis, St. Lucia, St. Vincent and the Grenadines, Trinidad and Tobago.

Caribbean Basin country end product means an article that--

(1) Is wholly the growth, product, or manufacture of a Caribbean Basin country; or

(2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a Caribbean Basin country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself. The term excludes products that are excluded from duty-free treatment for Caribbean countries under 19 U.S.C. 2703(b), which presently are--

- (i) Textiles and apparel articles that are subject to textile agreements;
- (ii) Footwear, handbags, luggage, flat goods, work gloves, and leather wearing apparel not designated as eligible articles for the purpose of the Generalized System of Preferences under Title V of the Trade Act of 1974;
- (iii) Tuna, prepared or preserved in any manner in airtight containers;
- (iv) Petroleum, or any product derived from petroleum; and
- (v) Watches and watch parts (including cases, bracelets, and straps) of whatever type including, but not limited to, mechanical, quartz digital, or quartz analog, if such watches or watch parts contain any material that is the product of any country to which the Harmonized Tariff Schedule of the United States (HTSUS) column 2 rates of duty apply.

Designated country means any of the following countries: Aruba, Austria, Bangladesh, Belgium, Benin, Bhutan, Botswana, Burkina Faso, Burundi, Canada, Cape Verde, Central African Republic, Chad, Comoros, Denmark, Djibouti, Equatorial Guinea.

Finland, France, Gambia, Germany, Greece, Guinea, Guinea-Bissau, Haiti, Honduras, Hong Kong, Iceland, Ireland, Israel, Italy, Japan.

Kiribati, Korea, Republic of Lesotho, Liechtenstein, Luxembourg, Malawi, Maldives, Mali, Mozambique, Nepal, Netherlands, Niger, Norway, Portugal, Rwanda.

Sao Tome and Principe, Sierra Leone, Singapore, Somalia, Spain, Sweden, Switzerland, Tanzania U.R., Togo, Tuvalu, Uganda, United Kingdom, Vanuatu, Western Samoa, Yemen.

Designated country end product means an article that--

- (1) Is wholly the growth, product, or manufacture of a designated country; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a designated country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services, (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

End product means supplies delivered under a line item of a Government contract.

Free Trade Agreement country means Canada, Chile, Mexico, or Singapore.

Free Trade Agreement country end product means an article that--

- (1) Is wholly the growth, product, or manufacture of a Free Trade Agreement (FTA) country; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in an FTA country into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.



United States means the 50 States, the District of Columbia, and outlying areas.

U.S.-made end product means an article that is mined, produced, or manufactured in the United States or that is substantially transformed in the United States into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed.,

(b) Delivery of end products. The Contracting Officer has determined that the Trade Agreements Act and FTA apply to this acquisition. Unless otherwise specified, these trade agreements apply to all items in the Schedule. The Contractor shall deliver under this contract only U.S.-made, designated country, Caribbean Basin country, or FTA country end products except to the extent that, in its offer, it specified delivery of other end products in the provision entitled "Trade Agreements Certificate."

(c) United States law will apply to resolve any claim of breach of this contract.

(End of clause)

#### 52.225-9 BUY AMERICAN ACT—CONSTRUCTION MATERIALS (JUN 2003)

(a) Definitions. As used in this clause--

Component means an article, material, or supply incorporated directly into a construction material.

Construction material means an article, material, or supply brought to the construction site by the Contractor or a subcontractor for incorporation into the building or work. The term also includes an item brought to the site preassembled from articles, materials, or supplies. However, emergency life safety systems, such as emergency lighting, fire alarm, and audio evacuation systems, that are discrete systems incorporated into a public building or work and that are produced as complete systems, are evaluated as a single and distinct construction material regardless of when or how the individual parts or components of those systems are delivered to the construction site. Materials purchased directly by the Government are supplies, not construction material.

Cost of components means--

(1) For components purchased by the Contractor, the acquisition cost, including transportation costs to the place of incorporation into the construction material (whether or not such costs are paid to a domestic firm), and any applicable duty (whether or not a duty-free entry certificate is issued); or

(2) For components manufactured by the Contractor, all costs associated with the manufacture of the component, including transportation costs as described in paragraph (1) of this definition, plus allocable overhead costs, but excluding profit. Cost of components does not include any costs associated with the manufacture of the end product.

Domestic construction material means--

(1) An unmanufactured construction material mined or produced in the United States; or

(2) A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components. Components of foreign origin of the same class or kind for which nonavailability determinations have been made are treated as domestic.

Foreign construction material means a construction material other than a domestic construction material.

United States means the 50 States, the District of Columbia, and outlying areas.

(b) Domestic preference. (1) This clause implements the Buy American Act (41 U.S.C. 10a-10d) by providing a preference for domestic construction material. The Contractor shall use only domestic construction material in performing this contract, except as provided in paragraphs (b)(2) and (b)(3) of this clause.

(2) This requirement does not apply to the construction material or components listed by the Government as follows:  
None

(3) The Contracting Officer may add other foreign construction material to the list in paragraph (b)(2) of this clause if the Government determines that

(i) The cost of domestic construction material would be unreasonable. The cost of a particular domestic construction material subject to the requirements of the Buy American Act is unreasonable when the cost of such material exceeds the cost of foreign material by more than 6 percent;

(ii) The application of the restriction of the Buy American Act to a particular construction material would be impracticable or inconsistent with the public interest; or

(iii) The construction material is not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities of a satisfactory quality.

(c) Request for determination of inapplicability of the Buy American Act. (1)(i) Any Contractor request to use foreign construction material in accordance with paragraph (b)(3) of this clause shall include adequate information for Government evaluation of the request, including--

(A) A description of the foreign and domestic construction materials;

(B) Unit of measure;

(C) Quantity;

(D) Price;

(E) Time of delivery or availability;

(F) Location of the construction project;

(G) Name and address of the proposed supplier; and

(H) A detailed justification of the reason for use of foreign construction materials cited in accordance with paragraph (b)(3) of this clause.

(ii) A request based on unreasonable cost shall include a reasonable survey of the market and a completed price comparison table in the format in paragraph (d) of this clause.

(iii) The price of construction material shall include all delivery costs to the construction site and any applicable duty (whether or not a duty-free certificate may be issued).

(iv) Any Contractor request for a determination submitted after contract award shall explain why the Contractor could not reasonably foresee the need for such determination and could not have requested the determination before

contract award. If the Contractor does not submit a satisfactory explanation, the Contracting Officer need not make a determination.

(2) If the Government determines after contract award that an exception to the Buy American Act applies and the Contracting Officer and the Contractor negotiate adequate consideration, the Contracting Officer will modify the contract to allow use of the foreign construction material. However, when the basis for the exception is the unreasonable price of a domestic construction material, adequate consideration is not less than the differential established in paragraph (b)(3)(i) of this clause.

(3) Unless the Government determines that an exception to the Buy American Act applies, use of foreign construction material is noncompliant with the Buy American Act.

(d) Data. To permit evaluation of requests under paragraph (c) of this clause based on unreasonable cost, the Contractor shall include the following information and any applicable supporting data based on the survey of suppliers:

Foreign and Domestic Construction Materials Price Comparison

Construction material description	Unit of measure	Quantity	Price (dollars) \1\
Item 1			
Foreign construction material....			
Domestic construction material...			
Item 2			
Foreign construction material....			
Domestic construction material...			

Include all delivery costs to the construction site and any applicable duty (whether or not a duty-free entry certificate is issued).

List name, address, telephone number, and contact for suppliers surveyed. Attach copy of response; if oral, attach summary.

Include other applicable supporting information.

(End of clause)

52.225-10 NOTICE OF BUY AMERICAN ACT REQUIREMENT--CONSTRUCTION MATERIALS (MAY 2002)

(a) Definitions. Construction material, domestic construction material, and foreign construction material, as used in this provision, are defined in the clause of this solicitation entitled "Buy American Act--Construction Materials" (Federal Acquisition Regulation (FAR) clause 52.225-9).

(b) Requests for determinations of inapplicability. An offeror requesting a determination regarding the inapplicability of the Buy American Act should submit the request to the Contracting Officer in time to allow a determination before submission of offers. The offeror shall include the information and applicable supporting data required by paragraphs (c) and (d) of the clause at FAR 52.225-9 in the request. If an offeror has not requested a determination regarding the inapplicability of the Buy American Act before submitting its offer, or has not received a response to a previous request, the offeror shall include the information and supporting data in the offer.

(c) Evaluation of offers. (1) The Government will evaluate an offer requesting exception to the requirements of the Buy American Act, based on claimed unreasonable cost of domestic construction material, by adding to the offered

price the appropriate percentage of the cost of such foreign construction material, as specified in paragraph (b)(3)(i) of the clause at FAR 52.225-9.

(2) If evaluation results in a tie between an offeror that requested the substitution of foreign construction material based on unreasonable cost and an offeror that did not request an exception, the Contracting Officer will award to the offeror that did not request an exception based on unreasonable cost.

(d) Alternate offers.

(1) When an offer includes foreign construction material not listed by the Government in this solicitation in paragraph (b)(2) of the clause at FAR 52.225-9, the offeror also may submit an alternate offer based on use of equivalent domestic construction material.

(2) If an alternate offer is submitted, the offeror shall submit a separate Standard Form 1442 for the alternate offer, and a separate price comparison table prepared in accordance with paragraphs (c) and (d) of the clause at FAR 52.225-9 for the offer that is based on the use of any foreign construction material for which the Government has not yet determined an exception applies.

(3) If the Government determines that a particular exception requested in accordance with paragraph (c) of the clause at FAR 52.225-9 does not apply, the Government will evaluate only those offers based on use of the equivalent domestic construction material, and the offeror shall be required to furnish such domestic construction material. An offer based on use of the foreign construction material for which an exception was requested--

(i) Will be rejected as nonresponsive if this acquisition is conducted by sealed bidding; or

(ii) May be accepted if revised during negotiations.

(End of provision)

#### 52.225-13 RESTRICTIONS ON CERTAIN FOREIGN PURCHASES (JAN 2004)

(a) Except as authorized by the Office of Foreign Assets Control (OFAC) in the Department of the Treasury, the Contractor shall not acquire, for use in the performance of this contract, any supplies or services if any proclamation, Executive order, or statute administered by OFAC, or if OFAC's implementing regulations at 31 CFR chapter V, would prohibit such a transaction by a person subject to the jurisdiction of the United States.

(b) Except as authorized by OFAC, most transactions involving Cuba, Iran, Libya, and Sudan are prohibited, as are most imports from North Korea, into the United States or its outlying areas. Lists of entities and individuals subject to economic sanctions are included in OFAC's List of Specially Designated Nationals and Blocked Persons at TerList1.html. More information about these restrictions, as well as updates, is available in the OFAC's regulations at 31 CFR chapter V and/or on OFAC's Web site at <http://www.treas.gov/ofac>.

(c) The Contractor shall insert this clause, including this paragraph (c), in all subcontracts.

(End of clause)

#### 52.225-15 SANCTIONED EUROPEAN UNION COUNTRY END PRODUCTS (FEB 2000)

(a) Definitions. As used in this clause--

Sanctioned European Union country end product means an article that--

- (1) Is wholly the growth, product, or manufacture of a sanctioned European Union (EU) member state; or
- (2) In the case of an article that consists in whole or in part of materials from another country, has been substantially transformed in a sanctioned EU member state into a new and different article of commerce with a name, character, or use distinct from that of the article or articles from which it was transformed. The term refers to a product offered for purchase under a supply contract, but for purposes of calculating the value of the end product includes services (except transportation services) incidental to the article, provided that the value of those incidental services does not exceed that of the article itself.

Sanctioned European Union member state means Austria, Belgium, Denmark, Finland, France, Ireland, Italy, Luxembourg, the Netherlands, Sweden, or the United Kingdom.

(b) The Contractor shall not deliver any sanctioned European Union country end products under this contract.

(End of clause)

#### 52.226-1 UTILIZATION OF INDIAN ORGANIZATIONS AND INDIAN-OWNED ECONOMIC ENTERPRISES (JUN 2000)

(a) Definitions. As used in this clause:

"Indian" means any person who is a member of any Indian tribe, band, group, pueblo or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any "Native" as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

"Indian organization" means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C., chapter 17.

"Indian-owned economic enterprise" means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitute not less than 51 percent of the enterprise.

"Indian tribe" means any Indian tribe, band, group, pueblo or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1542(c).

"Interested party" means a prime contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contractor shall use its best efforts to give Indian organizations and Indian-owned economic enterprises (25 U.S.C. 1544) the maximum practicable opportunity to participate in the subcontracts it awards to the fullest extent consistent with efficient performance of its contract.

(1) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless an interested party challenges its status or the Contracting Officer has independent reason to question that status. In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs (BIA), Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street, NW., MS 2626-MIB, Washington, DC 20240-4000.

The BIA will determine the eligibility and notify the Contracting Officer. No incentive payment will be made within 50 working days of subcontract award or while a challenge is pending. If a subcontractor is determined to be an ineligible participant, no incentive payment will be made under the Indian Incentive Program.

(2) The Contractor may request an adjustment under the Indian Incentive Program to the following:

- (i) The estimated cost of a cost-type contract.
- (ii) The target cost of a cost-plus-incentive-fee prime contract.
- (iii) The target cost and ceiling price of a fixed-price incentive prime contract.
- (iv) The price of a firm-fixed-price prime contract.

(3) The amount of the adjustment to the prime contract is 5 percent of the estimated cost, target cost, or firm-fixed-price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(4) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(c) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor. The Contracting Officer will seek funding in accordance with agency procedures.

(End of clause)

#### 52.227-1 AUTHORIZATION AND CONSENT (JUL 1995)

(a) The Government authorizes and consents to all use and manufacture, in performing this contract or any subcontract at any tier, of any invention described in and covered by a United States patent (1) embodied in the structure or composition of any article the delivery of which is accepted by the Government under this contract or (2) used in machinery, tools, or methods whose use necessarily results from compliance by the Contractor or a subcontractor with (i) specifications or written provisions forming a part of this contract or (ii) specific written instructions given by the Contracting Officer directing the manner of performance. The entire liability to the Government for infringement of a patent of the United States shall be determined solely by the provisions of the indemnity clause, if any, included in this contract or any subcontract hereunder (including any lower-tier subcontract), and the Government assumes liability for all other infringement to the extent of the authorization and consent hereinabove granted.

(b) The Contractor agrees to include, and require inclusion of, this clause, suitably modified to identify the parties, in all subcontracts at any tier for supplies or services (including construction, architect-engineer services, and materials, supplies, models, samples, and design or testing services expected to exceed the simplified acquisition threshold

(however, omission of this clause from any subcontract, including those at or below the simplified acquisition threshold, does not affect this authorization and consent.)

(End of clause)

#### 52.227-2 NOTICE AND ASSISTANCE REGARDING PATENT AND COPYRIGHT INFRINGEMENT (AUG 1996)

(a) The Contractor shall report to the Contracting Officer, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of this contract of which the Contractor has knowledge.

(b) In the event of any claim or suit against the Government on account of any alleged patent or copyright infringement arising out of the performance of this contract or out of the use of any supplies furnished or work or services performed under this contract, the Contractor shall furnish to the Government, when requested by the Contracting Officer, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Government except where the Contractor has agreed to indemnify the Government.

(4) The Contractor agrees to include, and require inclusion of, this clause in all subcontracts at any tier for supplies or services (including construction and architect-engineer subcontracts and those for material, supplies, models, samples, or design or testing services) expected to exceed the simplified acquisition threshold at (FAR) 2.101 to exceed the dollar amount set forth in 13.000 of the Federal Acquisition Regulation (FAR).

(End of clause)

#### 52.227-4 PATENT INDEMNITY--CONSTRUCTION CONTRACTS (APR 1984)

Except as otherwise provided, the Contractor agrees to indemnify the Government and its officers, agents, and employees against liability, including costs and expenses, for infringement upon any United States patent (except a patent issued upon an application that is now or may hereafter be withheld from issue pursuant to a Secrecy Order under 35 U.S.C. 181) arising out of performing this contract or out of the use or disposal by or for the account of the Government of supplies furnished or work performed under this contract.

(End of clause)

#### 52.228-1 BID GUARANTEE (SEP 1996)

(a) Failure to furnish a bid guarantee in the proper form and amount, by the time set for opening of bids, may be cause for rejection of the bid.

(b) The bidder shall furnish a bid guarantee in the form of a firm commitment, e.g., bid bond supported by good and sufficient surety or sureties acceptable to the Government, postal money order, certified check, cashier's check, irrevocable letter of credit, or, under Treasury Department regulations, certain bonds or notes of the United States. The Contracting Officer will return bid guarantees, other than bid bonds, (1) to unsuccessful bidders as soon as practicable after the opening of bids, and (2) to the successful bidder upon execution of contractual documents and bonds (including any necessary coinsurance or reinsurance agreements), as required by the bid as accepted.-

(c) The amount of the bid guarantee shall be \_\_\_\_\_ percent of the bid price or \$\_\_\_\_\_, whichever is less.-

(d) If the successful bidder, upon acceptance of its bid by the Government within the period specified for acceptance, fails to execute all contractual documents or furnish executed bond(s) within 10 days after receipt of the forms by the bidder, the Contracting Officer may terminate the contract for default.-

(e) In the event the contract is terminated for default, the bidder is liable for any cost of acquiring the work that exceeds the amount of its bid, and the bid guarantee is available to offset the difference.

(End of clause)

#### 52.228-2 ADDITIONAL BOND SECURITY (OCT 1997)

The Contractor shall promptly furnish additional security required to protect the Government and persons supplying labor or materials under this contract if--

(a) Any surety upon any bond, or issuing financial institution for other security, furnished with this contract becomes unacceptable to the Government.

(b) Any surety fails to furnish reports on its financial condition as required by the Government;

(c) The contract price is increased so that the penal sum of any bond becomes inadequate in the opinion of the Contracting Officer; or

(d) An irrevocable letter of credit (ILC) used as security will expire before the end of the period of required security. If the Contractor does not furnish an acceptable extension or replacement ILC, or other acceptable substitute, at least 30 days before an ILC's scheduled expiration, the Contracting officer has the right to immediately draw on the ILC.

(End of clause)

#### 52.228-5 INSURANCE--WORK ON A GOVERNMENT INSTALLATION (JAN 1997)

(a) The Contractor shall, at its own expense, provide and maintain during the entire performance of this contract, at least the kinds and minimum amounts of insurance required in the Schedule or elsewhere in the contract.

(b) Before commencing work under this contract, the Contractor shall notify the Contracting Officer in writing that the required insurance has been obtained. The policies evidencing required insurance shall contain an endorsement to the effect that any cancellation or any material change adversely affecting the Government's interest shall not be effective (1) for such period as the laws of the State in which this contract is to be performed prescribe, or (2) until 30 days after the insurer or the Contractor gives written notice to the Contracting Officer, whichever period is longer.

(c) The Contractor shall insert the substance of this clause, including this paragraph (c), in subcontracts under this contract that require work on a Government installation and shall require subcontractors to provide and maintain the insurance required in the Schedule or elsewhere in the contract. The Contractor shall maintain a copy of all subcontractors' proofs of required insurance, and shall make copies available to the Contracting Officer upon request.

(End of clause)



## 52.228-11 PLEDGES OF ASSETS (FEB 1992)

(a) Offerors shall obtain from each person acting as an individual surety on a bid guarantee, a performance bond, or a payment bond--

(1) Pledge of assets; and

(2) Standard Form 28, Affidavit of Individual Surety.

(b) Pledges of assets from each person acting as an individual surety shall be in the form of--

(1) Evidence of an escrow account containing cash, certificates of deposit, commercial or Government securities, or other assets described in FAR 28.203-2 (except see 28.203-2(b)(2) with respect to Government securities held in book entry form) and/or;

(2) A recorded lien on real estate. The offeror will be required to provide--

(i) Evidence of title in the form of a certificate of title prepared by a title insurance company approved by the United States Department of Justice. This title evidence must show fee simple title vested in the surety along with any concurrent owners; whether any real estate taxes are due and payable; and any recorded encumbrances against the property, including the lien filed in favor of the Government as required by FAR 28.203-3(d);

(ii) Evidence of the amount due under any encumbrance shown in the evidence of title;

(iii) A copy of the current real estate tax assessment of the property or a current appraisal dated no earlier than 6 months prior to the date of the bond, prepared by a professional appraiser who certifies that the appraisal has been conducted in accordance with the generally accepted appraisal standards as reflected in the Uniform Standards of Professional Appraisal Practice, as promulgated by the Appraisal Foundation.

(End of clause)

## 52.228-12 PROSPECTIVE SUBCONTRACTOR REQUESTS FOR BONDS. (OCT 1995)

In accordance with Section 806(a)(3) of Pub. L. 102-190, as amended by Sections 2091 and 8105 of Pub. L. 103-355, upon the request of a prospective subcontractor or supplier offering to furnish labor or material for the performance of this contract for which a payment bond has been furnished to the Government pursuant to the Miller Act, the Contractor shall promptly provide a copy of such payment bond to the requester.

(End of clause)

## 52.228-14 IRREVOCABLE LETTER OF CREDIT (DEC 1999)

(a) "Irrevocable letter of credit" (ILC), as used in this clause, means a written commitment by a federally insured financial institution to pay all or part of a stated amount of money, until the expiration date of the letter, upon presentation by the Government (the beneficiary) of a written demand therefor. Neither the financial institution nor the offeror/Contractor can revoke or condition the letter of credit.

(b) If the offeror intends to use an ILC in lieu of a bid bond, or to secure other types of bonds such as performance and payment bonds, the letter of credit and letter of confirmation formats in paragraphs (e) and (f) of this clause shall be used.

(c) The letter of credit shall be irrevocable, shall require presentation of no document other than a written demand and the ILC (including confirming letter, if any), shall be issued/confirmed by an acceptable federally insured financial institution as provided in paragraph (d) of this clause, and--

(1) If used as a bid guarantee, the ILC shall expire no earlier than 60 days after the close of the bid acceptance period;

(2) If used as an alternative to corporate or individual sureties as security for a performance or payment bond, the offeror/Contractor may submit an ILC with an initial expiration date estimated to cover the entire period for which financial security is required or may submit an ILC with an initial expiration date that is a minimum period of one year from the date of issuance. The ILC shall provide that, unless the issuer provides the beneficiary written notice of non-renewal at least 60 days in advance of the current expiration date, the ILC is automatically extended without amendment for one year from the expiration date, or any future expiration date, until the period of required coverage is completed and the Contracting Officer provides the financial institution with a written statement waiving the right to payment. The period of required coverage shall be:

(i) For contracts subject to the Miller Act, the later of--

(A) One year following the expected date of final payment;

(B) For performance bonds only, until completion of any warranty period; or

(C) For payment bonds only, until resolution of all claims filed against the payment bond during the one-year period following final payment.

(ii) For contracts not subject to the Miller Act, the later of--

(A) 90 days following final payment; or

(B) For performance bonds only, until completion of any warranty period.

(d) Only federally insured financial institutions rated investment grade or higher shall issue or confirm the ILC. The offeror/Contractor shall provide the Contracting Officer a credit rating that indicates the financial institution has the required rating(s) as of the date of issuance of the ILC. Unless the financial institution issuing the ILC had letter of credit business of less than \$25 million in the past year, ILCs over \$5 million must be confirmed by another acceptable financial institution that had letter of credit business of less than \$25 million in the past year.

(e) The following format shall be used by the issuing financial institution to create an ILC:

-----  
[Issuing Financial Institution's Letterhead or Name and Address]

Issue Date \_\_\_\_\_

IRREVOCABLE LETTER OF CREDIT NO. \_\_\_\_\_

Account party's name \_\_\_\_\_

Account party's address \_\_\_\_\_

For Solicitation No. \_\_\_\_\_(for reference only)

TO: [U.S. Government agency]

[U.S. Government agency's address]

1. We hereby establish this irrevocable and transferable Letter of Credit in your favor for one or more drawings up to United States \$\_\_\_\_\_. This Letter of Credit is payable at [issuing financial institution's and, if any, confirming financial institution's] office at [issuing financial institution's address and, if any, confirming financial institution's address] and expires with our close of business on \_\_\_\_\_, or any automatically extended expiration date.

2. We hereby undertake to honor your or the transferee's sight draft(s) drawn on the issuing or, if any, the confirming financial institution, for all or any part of this credit if presented with this Letter of Credit and confirmation, if any, at the office specified in paragraph 1 of this Letter of Credit on or before the expiration date or any automatically extended expiration date.

3. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this Letter of Credit that it is deemed to be automatically extended without amendment for one year from the expiration date hereof, or any future expiration date, unless at least 60 days prior to any expiration date, we notify you or the transferee by registered mail, or other receipted means of delivery, that we elect not to consider this Letter of Credit renewed for any such additional period. At the time we notify you, we also agree to notify the account party (and confirming financial institution, if any) by the same means of delivery.

4. This Letter of Credit is transferable. Transfers and assignments of proceeds are to be effected without charge to either the beneficiary or the transferee/assignee of proceeds. Such transfer or assignment shall be only at the written direction of the Government (the beneficiary) in a form satisfactory to the issuing financial institution and the confirming financial institution, if any.

5. This Letter of Credit is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of \_\_\_\_\_ [state of confirming financial institution, if any, otherwise state of issuing financial institution].

6. If this credit expires during an interruption of business of this financial institution as described in Article 17 of the UCP, the financial institution specifically agrees to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

\_\_\_\_\_

[Issuing financial institution]

(f) The following format shall be used by the financial institution to confirm an ILC:

\_\_\_\_\_  
[Confirming Financial Institution's Letterhead or Name and Address]

(Date) \_\_\_\_\_

Our Letter of Credit Advice Number \_\_\_\_\_

Beneficiary: \_\_\_\_\_ [U.S. Government agency]

Issuing Financial Institution: \_\_\_\_\_

Issuing Financial Institution's LC No.: \_\_\_\_\_

Gentlemen:

1. We hereby confirm the above indicated Letter of Credit, the original of which is attached, issued by \_\_\_\_\_ [name of issuing financial institution] for drawings of up to United States dollars \_\_\_\_\_/U.S. \$\_\_\_\_\_ and expiring with our close of business on \_\_\_\_\_ [the expiration date], or any automatically extended expiration date.

2. Draft(s) drawn under the Letter of Credit and this Confirmation are payable at our office located at \_\_\_\_\_.

3. We hereby undertake to honor sight draft(s) drawn under and presented with the Letter of Credit and this Confirmation at our offices as specified herein.

4. [This paragraph is omitted if used as a bid guarantee, and subsequent paragraphs are renumbered.] It is a condition of this confirmation that it be deemed automatically extended without amendment for one year from the expiration date hereof, or any automatically extended expiration date, unless:

(a) At least 60 days prior to any such expiration date, we shall notify the Contracting Officer, or the transferee and the issuing financial institution, by registered mail or other receipted means of delivery, that we elect not to consider this confirmation extended for any such additional period; or

(b) The issuing financial institution shall have exercised its right to notify you or the transferee, the account party, and ourselves, of its election not to extend the expiration date of the Letter of Credit.

5. This confirmation is subject to the Uniform Customs and Practice (UCP) for Documentary Credits, 1993 Revision, International Chamber of Commerce Publication No. 500, and to the extent not inconsistent therewith, to the laws of \_\_\_\_\_ [state of confirming financial institution].

6. If this confirmation expires during an interruption of business of this financial institution as described in Article 17 of the UCP, we specifically agree to effect payment if this credit is drawn against within 30 days after the resumption of our business.

Sincerely,

\_\_\_\_\_

[Confirming financial institution]

(g) The following format shall be used by the Contracting Officer for a sight draft to draw on the Letter of Credit:

SIGHT DRAFT

\_\_\_\_\_

[City, State]

(Date) \_\_\_\_\_

[Name and address of financial institution]

Pay to the order of \_\_\_\_\_ [Beneficiary Agency] \_\_\_\_\_ the sum of United States  
\$ \_\_\_\_\_. This draft is drawn under Irrevocable Letter of Credit No.

\_\_\_\_\_.

\_\_\_\_\_

[Beneficiary Agency]

By: \_\_\_\_\_

(End of clause)

#### 52.228-15 PERFORMANCE AND PAYMENT BONDS--CONSTRUCTION (JUL 2000)-

##### (a) Definitions. As used in this clause--

Original contract price means the award price of the contract; or, for requirements contracts, the price payable for the estimated total quantity; or, for indefinite-quantity contracts, the price payable for the specified minimum quantity. Original contract price does not include the price of any options, except those options exercised at the time of contract award.

(b) Amount of required bonds. Unless the resulting contract price is \$100,000 or less, the successful offeror shall furnish performance and payment bonds to the Contracting Officer as follows:

(1) Performance bonds (Standard Form 25). The penal amount of performance bonds at the time of contract award shall be 100 percent of the original contract price.

(2) Payment Bonds (Standard Form 25-A). The penal amount of payment bonds at the time of contract award shall be 100 percent of the original contract price.

(3) Additional bond protection. (i) The Government may require additional performance and payment bond protection if the contract price is increased. The increase in protection generally will equal 100 percent of the increase in contract price.

(ii) The Government may secure the additional protection by directing the Contractor to increase the penal amount of the existing bond or to obtain an additional bond.

(c) Furnishing executed bonds. The Contractor shall furnish all executed bonds, including any necessary reinsurance agreements, to the Contracting Officer, within the time period specified in the Bid Guarantee provision of the solicitation, or otherwise specified by the Contracting Officer, but in any event, before starting work.

(d) Surety or other security for bonds. The bonds shall be in the form of firm commitment, supported by corporate sureties whose names appear on the list contained in Treasury Department Circular 570, individual sureties, or by other acceptable security such as postal money order, certified check, cashier's check, irrevocable letter of credit, or, in accordance with Treasury Department regulations, certain bonds or notes of the United States. Treasury Circular 570 is published in the Federal Register or may be obtained from the U.S. Department of Treasury, Financial Management Service, Surety Bond Branch, 401 14th Street, NW, 2nd Floor, West Wing, Washington, DC 20227.

(e) Notice of subcontractor waiver of protection (40 U.S.C. 270b(c)). Any waiver of the right to sue on the payment bond is void unless it is in writing, signed by the person whose right is waived, and executed after such person has first furnished labor or material for use in the performance of the contract.

(End of clause)

52.229-3 FEDERAL, STATE, AND LOCAL TAXES (APR 2003)

(a) As used in this clause--

"Contract date" means the date set for bid opening or, if this is a negotiated contract or a modification, the effective date of this contract or modification.

"All applicable Federal, State, and local taxes and duties" means all taxes and duties, in effect on the contract date, that the taxing authority is imposing and collecting on the transactions or property covered by this contract.

"After-imposed Federal tax" means any new or increased Federal excise tax or duty, or tax that was exempted or excluded on the contract date but whose exemption was later revoked or reduced during the contract period, on the transactions or property covered by this contract that the Contractor is required to pay or bear as the result of legislative, judicial, or administrative action taking effect after the contract date. It does not include social security tax or other employment taxes.

"After-relieved Federal tax" means any amount of Federal excise tax or duty, except social security or other employment taxes, that would otherwise have been payable on the transactions or property covered by this contract, but which the Contractor is not required to pay or bear, or for which the Contractor obtains a refund or drawback, as the result of legislative, judicial, or administrative action taking effect after the contract date.

Local taxes includes taxes imposed by a possession or territory of the United States, Puerto Rico, or the Northern Mariana Islands, if the contract is performed wholly or partly in any of those areas.

(b) The contract price includes all applicable Federal, State, and local taxes and duties.

(c) The contract price shall be increased by the amount of any after-imposed Federal tax, provided the Contractor warrants in writing that no amount for such newly imposed Federal excise tax or duty or rate increase was included in the contract price, as a contingency reserve or otherwise.

(d) The contract price shall be decreased by the amount of any after-relieved Federal tax.

(e) The contract price shall be decreased by the amount of any Federal excise tax or duty, except social security or other employment taxes, that the Contractor is required to pay or bear, or does not obtain a refund of, through the Contractor's fault, negligence, or failure to follow instructions of the Contracting Officer.

(f) No adjustment shall be made in the contract price under this clause unless the amount of the adjustment exceeds \$250.

(g) The Contractor shall promptly notify the Contracting Officer of all matters relating to any Federal excise tax or duty that reasonably may be expected to result in either an increase or decrease in the contract price and shall take appropriate action as the Contracting Officer directs.

(h) The Government shall, without liability, furnish evidence appropriate to establish exemption from any Federal, State, or local tax when the Contractor requests such evidence and a reasonable basis exists to sustain the exemption.

(End of clause)

## 52.232-5 PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS (SEP 2002)

(a) Payment of price. The Government shall pay the Contractor the contract price as provided in this contract.

(b) Progress payments. The Government shall make progress payments monthly as the work proceeds, or at more frequent intervals as determined by the Contracting Officer, on estimates of work accomplished which meets the standards of quality established under the contract, as approved by the Contracting Officer.

(1) The Contractor's request for progress payments shall include the following substantiation:

(i) An itemization of the amounts requested, related to the various elements of work required by the contract covered by the payment requested.

(ii) A listing of the amount included for work performed by each subcontractor under the contract.

(iii) A listing of the total amount of each subcontract under the contract.

(iv) A listing of the amounts previously paid to each such subcontractor under the contract.

(v) Additional supporting data in a form and detail required by the Contracting Officer.

(2) In the preparation of estimates, the Contracting Officer may authorize material delivered on the site and preparatory work done to be taken into consideration. Material delivered to the Contractor at locations other than the site also may be taken into consideration if--

(i) Consideration is specifically authorized by this contract; and

(ii) The Contractor furnishes satisfactory evidence that it has acquired title to such material and that the material will be used to perform this contract.

(c) Contractor certification. Along with each request for progress payments, the Contractor shall furnish the following certification, or payment shall not be made: (However, if the Contractor elects to delete paragraph (c)(4) from the certification, the certification is still acceptable.)

I hereby certify, to the best of my knowledge and belief, that--

(1) The amounts requested are only for performance in accordance with the specifications, terms, and conditions of the contract;

(2) All payments due to subcontractors and suppliers from previous payments received under the contract have been made, and timely payments will be made from the proceeds of the payment covered by this certification, in accordance with subcontract agreements and the requirements of chapter 39 of Title 31, United States Code;

(3) This request for progress payments does not include any amounts which the prime contractor intends to withhold or retain from a subcontractor or supplier in accordance with the terms and conditions of the subcontract; and

(4) This certification is not to be construed as final acceptance of a subcontractor's performance.

\_\_\_\_\_

(Name)

-----  
 (Title)  
 -----

(Date)

(d) Refund of unearned amounts. If the Contractor, after making a certified request for progress payments, discovers that a portion or all of such request constitutes a payment for performance by the Contractor that fails to conform to the specifications, terms, and conditions of this contract (hereinafter referred to as the "unearned amount"), the Contractor shall--

(1) Notify the Contracting Officer of such performance deficiency; and

(2) Be obligated to pay the Government an amount (computed by the Contracting Officer in the manner provided in paragraph (j) of this clause) equal to interest on the unearned amount from the 8th day after the date of receipt of the unearned amount until--

(i) The date the Contractor notifies the Contracting Officer that the performance deficiency has been corrected; or

(ii) The date the Contractor reduces the amount of any subsequent certified request for progress payments by an amount equal to the unearned amount.

(e) Retainage. If the Contracting Officer finds that satisfactory progress was achieved during any period for which a progress payment is to be made, the Contracting Officer shall authorize payment to be made in full. However, if satisfactory progress has not been made, the Contracting Officer may retain a maximum of 10 percent of the amount of the payment until satisfactory progress is achieved. When the work is substantially complete, the Contracting Officer may retain from previously withheld funds and future progress payments that amount the Contracting Officer considers adequate for protection of the Government and shall release to the Contractor all the remaining withheld funds. Also, on completion and acceptance of each separate building, public work, or other division of the contract, for which the price is stated separately in the contract, payment shall be made for the completed work without retention of a percentage.

(f) Title, liability, and reservation of rights. All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Government, but this shall not be construed as--

(1) Relieving the Contractor from the sole responsibility for all material and work upon which payments have been made or the restoration of any damaged work; or

(2) Waiving the right of the Government to require the fulfillment of all of the terms of the contract.

(g) Reimbursement for bond premiums. In making these progress payments, the Government shall, upon request, reimburse the Contractor for the amount of premiums paid for performance and payment bonds (including coinsurance and reinsurance agreements, when applicable) after the Contractor has furnished evidence of full payment to the surety. The retainage provisions in paragraph (e) of this clause shall not apply to that portion of progress payments attributable to bond premiums.

(h) Final payment. The Government shall pay the amount due the Contractor under this contract after--

(1) Completion and acceptance of all work;

(2) Presentation of a properly executed voucher; and



(3) Presentation of release of all claims against the Government arising by virtue of this contract, other than claims, in stated amounts, that the Contractor has specifically excepted from the operation of the release. A release may also be required of the assignee if the Contractor's claim to amounts payable under this contract has been assigned under the Assignment of Claims Act of 1940 (31 U.S.C. 3727 and 41 U.S.C. 15).

(i) Limitation because of undefinitized work. Notwithstanding any provision of this contract, progress payments shall not exceed 80 percent on work accomplished on undefinitized contract actions. A "contract action" is any action resulting in a contract, as defined in FAR Subpart 2.1, including contract modifications for additional supplies or services, but not including contract modifications that are within the scope and under the terms of the contract, such as contract modifications issued pursuant to the Changes clause, or funding and other administrative changes.

(j) Interest computation on unearned amounts. In accordance with 31 U.S.C. 3903(c)(1), the amount payable under subparagraph (d)(2) of this clause shall be--

(1) Computed at the rate of average bond equivalent rates of 91-day Treasury bills auctioned at the most recent auction of such bills prior to the date the Contractor receives the unearned amount; and

(2) Deducted from the next available payment to the Contractor.

(End of clause)

#### 52.232-17 INTEREST (JUNE 1996)

(a) Except as otherwise provided in this contract under a Price Reduction for Defective Cost or Pricing Data clause or a Cost Accounting Standards clause, all amounts that become payable by the Contractor to the Government under this contract (net of any applicable tax credit under the Internal Revenue Code (26 U.S.C. 1481)) shall bear simple interest from the date due until paid unless paid within 30 days of becoming due. The interest rate shall be the interest rate established by the Secretary of the Treasury as provided in Section 12 of the Contract Disputes Act of 1978 (Public Law 95-563), which is applicable to the period in which the amount becomes due, as provided in paragraph (b) of this clause, and then at the rate applicable for each six-month period as fixed by the Secretary until the amount is paid. reproduce, prepare derivative works, distribute copies to the public, and (b) Amounts shall be due at the earliest of the following dates:

(1) The date fixed under this contract.

(2) The date of the first written demand for payment consistent with this contract, including any demand resulting from a default termination.

(3) The date the Government transmits to the Contractor a proposed supplemental agreement to confirm completed negotiations establishing the amount of debt.

(4) If this contract provides for revision of prices, the date of written notice to the Contractor stating the amount of refund payable in connection with a pricing proposal or a negotiated pricing agreement not confirmed by contract modification.

(c) The interest charge made under this clause may be reduced under the procedures prescribed in 32.614-2 of the Federal Acquisition Regulation in effect on the date of this contract.

(End of clause)

## 52.232-23 ASSIGNMENT OF CLAIMS (JAN 1986)

(a) The Contractor, under the Assignment of Claims Act, as amended, 31 U.S.C. 3727, 41 U.S.C. 15 (hereafter referred to as "the Act"), may assign its rights to be paid amounts due or to become due as a result of the performance of this contract to a bank, trust company, or other financing institution, including any Federal lending agency. The assignee under such an assignment may thereafter further assign or reassign its right under the original assignment to any type of financing institution described in the preceding sentence.

(b) Any assignment or reassignment authorized under the Act and this clause shall cover all unpaid amounts payable under this contract, and shall not be made to more than one party, except that an assignment or reassignment may be made to one party as agent or trustee for two or more parties participating in the financing of this contract.

(c) The Contractor shall not furnish or disclose to any assignee under this contract any classified document (including this contract) or information related to work under this contract until the Contracting Officer authorizes such action in writing.

(End of clause)

## 52.232-27 PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS (OCT 2003)

Notwithstanding any other payment terms in this contract, the Government will make invoice payments under the terms and conditions specified in this clause. The Government considers payment as being made on the day a check is dated or the date of an electronic funds transfer. Definitions of pertinent terms are set forth in sections 2.101, 32.001, and 32.902 of the Federal Acquisition Regulation. All days referred to in this clause are calendar days, unless otherwise specified. (However, see paragraph (a)(3) concerning payments due on Saturdays, Sundays, and legal holidays.)

(a) Invoice payments--(1) Types of invoice payments. For purposes of this clause, there are several types of invoice payments that may occur under this contract, as follows:

(i) Progress payments, if provided for elsewhere in this contract, based on Contracting Officer approval of the estimated amount and value of work or services performed, including payments for reaching milestones in any project.

(A) The due date for making such payments is 14 days after the designated billing office receives a proper payment request. If the designated billing office fails to annotate the payment request with the actual date of receipt at the time of receipt, the payment due date is the 14th day after the date of the Contractor's payment request, provided the designated billing office receives a proper payment request and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(B) The due date for payment of any amounts retained by the Contracting Officer in accordance with the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts, is as specified in the contract or, if not specified, 30 days after approval by the Contracting Officer for release to the Contractor.

(ii) Final payments based on completion and acceptance of all work and presentation of release of all claims against the Government arising by virtue of the contract, and payments for partial deliveries that have been accepted by the Government (e.g., each separate building, public work, or other division of the contract for which the price is stated separately in the contract).

(A) The due date for making such payments is the later of the following two events:

(1) The 30th day after the designated billing office receives a proper invoice from the Contractor.

(2) The 30th day after Government acceptance of the work or services completed by the Contractor. For a final invoice when the payment amount is subject to contract settlement actions (e.g., release of claims), acceptance is deemed to occur on the effective date of the contract settlement.

(B) If the designated billing office fails to annotate the invoice with the date of actual receipt at the time of receipt, the invoice payment due date is the 30th day after the date of the Contractor's invoice, provided the designated billing office receives a proper invoice and there is no disagreement over quantity, quality, or Contractor compliance with contract requirements.

(2) Contractor's invoice. The Contractor shall prepare and submit invoices to the designated billing office specified in the contract. A proper invoice must include the items listed in paragraphs (a)(2)(i) through (a)(2)(xi) of this clause. If the invoice does not comply with these requirements, the designated billing office must return it within 7 days after receipt, with the reasons why it is not a proper invoice. When computing any interest penalty owed the Contractor, the Government will take into account if the Government notifies the Contractor of an improper invoice in an untimely manner.

(i) Name and address of the Contractor.

(ii) Invoice date and invoice number. (The Contractor should date invoices as close as possible to the date of mailing or transmission.)

(iii) Contract number or other authorization for work or services performed (including order number and contract line item number).

(iv) Description of work or services performed.

(v) Delivery and payment terms (e.g., discount for prompt payment terms).

(vi) Name and address of Contractor official to whom payment is to be sent (must be the same as that in the contract or in a proper notice of assignment).

(vii) Name (where practicable), title, phone number, and mailing address of person to notify in the event of a defective invoice.

(viii) For payments described in paragraph (a)(1)(i) of this clause, substantiation of the amounts requested and certification in accordance with the requirements of the clause at 52.232-5, Payments Under Fixed-Price Construction Contracts.

(ix) Taxpayer Identification Number (TIN). The Contractor shall include its TIN on the invoice only if required elsewhere in this contract.

(x) Electronic funds transfer (EFT) banking information.

(A) The Contractor shall include EFT banking information on the invoice only if required elsewhere in this contract.

(B) If EFT banking information is not required to be on the invoice, in order for the invoice to be a proper invoice, the Contractor shall have submitted correct EFT banking information in accordance with the applicable solicitation provision (e.g., 52.232-38, Submission of Electronic Funds Transfer Information with Offer), contract clause (e.g.,

52.232-33, Payment by Electronic Funds Transfer--Central Contractor Registration, or 52.232-34, Payment by Electronic Funds Transfer--Other Than Central Contractor Registration), or applicable agency procedures.

(C) EFT banking information is not required if the Government waived the requirement to pay by EFT.

(xi) Any other information or documentation required by the contract.

(3) Interest penalty. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if payment is not made by the due date and the conditions listed in paragraphs (a)(3)(i) through (a)(3)(iii) of this clause are met, if applicable. However, when the due date falls on a Saturday, Sunday, or legal holiday, the designated payment office may make payment on the following working day without incurring a late payment interest penalty.

(i) The designated billing office received a proper invoice.

(ii) The Government processed a receiving report or other Government documentation authorizing payment and there was no disagreement over quantity, quality, Contractor compliance with any contract term or condition, or requested progress payment amount.

(iii) In the case of a final invoice for any balance of funds due the Contractor for work or services performed, the amount was not subject to further contract settlement actions between the Government and the Contractor.

(4) Computing penalty amount. The Government will compute the interest penalty in accordance with the Office of Management and Budget prompt payment regulations at 5 CFR part 1315.

(i) For the sole purpose of computing an interest penalty that might be due the Contractor for payments described in paragraph (a)(1)(ii) of this clause, Government acceptance or approval is deemed to occur constructively on the 7th day after the Contractor has completed the work or services in accordance with the terms and conditions of the contract. If actual acceptance or approval occurs within the constructive acceptance or approval period, the Government will base the determination of an interest penalty on the actual date of acceptance or approval. Constructive acceptance or constructive approval requirements do not apply if there is a disagreement over quantity, quality, or Contractor compliance with a contract provision. These requirements also do not compel Government officials to accept work or services, approve Contractor estimates, perform contract administration functions, or make payment prior to fulfilling their responsibilities.

(ii) The prompt payment regulations at 5 CFR 1315.10(c) do not require the Government to pay interest penalties if payment delays are due to disagreement between the Government and the Contractor over the payment amount or other issues involving contract compliance, or on amounts temporarily withheld or retained in accordance with the terms of the contract. The Government and the Contractor shall resolve claims involving disputes, and any interest that may be payable in accordance with the clause at FAR 52.233-1, Disputes.

(5) Discounts for prompt payment. The designated payment office will pay an interest penalty automatically, without request from the Contractor, if the Government takes a discount for prompt payment improperly. The Government will calculate the interest penalty in accordance with the prompt payment regulations at 5 CFR part 1315.

(6) Additional interest penalty. (i) The designated payment office will pay a penalty amount, calculated in accordance with the prompt payment regulations at 5 CFR part 1315 in addition to the interest penalty amount only if--

(A) The Government owes an interest penalty of \$1 or more;

(B) The designated payment office does not pay the interest penalty within 10 days after the date the invoice amount is paid; and

(C) The Contractor makes a written demand to the designated payment office for additional penalty payment, in accordance with paragraph (a)(6)(ii) of this clause, postmarked not later than 40 days after the date the invoice amount is paid.

(ii)(A) The Contractor shall support written demands for additional penalty payments with the following data. The Government will not request any additional data. The Contractor shall--

(1) Specifically assert that late payment interest is due under a specific invoice, and request payment of all overdue late payment interest penalty and such additional penalty as may be required;

(2) Attach a copy of the invoice on which the unpaid late payment interest was due; and

(3) State that payment of the principal has been received, including the date of receipt.

(B) If there is no postmark or the postmark is illegible--

(1) The designated payment office that receives the demand will annotate it with the date of receipt provided the demand is received on or before the 40th day after payment was made; or

(2) If the designated payment office fails to make the required annotation, the Government will determine the demand's validity based on the date the Contractor has placed on the demand, provided such date is no later than the 40th day after payment was made.

(b) Contract financing payments. If this contract provides for contract financing, the Government will make contract financing payments in accordance with the applicable contract financing clause.

(c) Subcontract clause requirements. The Contractor shall include in each subcontract for property or services (including a material supplier) for the purpose of performing this contract the following:

(1) Prompt payment for subcontractors. A payment clause that obligates the Contractor to pay the subcontractor for satisfactory performance under its subcontract not later than 7 days from receipt of payment out of such amounts as are paid to the Contractor under this contract.

(2) Interest for subcontractors. An interest penalty clause that obligates the Contractor to pay to the subcontractor an interest penalty for each payment not made in accordance with the payment clause--

(i) For the period beginning on the day after the required payment date and ending on the date on which payment of the amount due is made; and

(ii) Computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contract Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(3) Subcontractor clause flowdown. A clause requiring each subcontractor to use:

(i) Include a payment clause and an interest penalty clause conforming to the standards set forth in paragraphs (c)(1) and (c)(2) of this clause in each of its subcontracts; and

(ii) Require each of its subcontractors to include such clauses in their subcontracts with each lower-tier subcontractor or supplier.

(d) Subcontract clause interpretation. The clauses required by paragraph (c) of this clause shall not be construed to impair the right of the Contractor or a subcontractor at any tier to negotiate, and to include in their subcontract, provisions that--

(1) Retainage permitted. Permit the Contractor or a subcontractor to retain (without cause) a specified percentage of each progress payment otherwise due to a subcontractor for satisfactory performance under the subcontract without incurring any obligation to pay a late payment interest penalty, in accordance with terms and conditions agreed to by the parties to the subcontract, giving such recognition as the parties deem appropriate to the ability of a subcontractor to furnish a performance bond and a payment bond;

(2) Withholding permitted. Permit the Contractor or subcontractor to make a determination that part or all of the subcontractor's request for payment may be withheld in accordance with the subcontract agreement; and

(3) Withholding requirements. Permit such withholding without incurring any obligation to pay a late payment penalty if--

(i) A notice conforming to the standards of paragraph (g) of this clause previously has been furnished to the subcontractor; and

(ii) The Contractor furnishes to the Contracting Officer a copy of any notice issued by a Contractor pursuant to paragraph (d)(3)(i) of this clause.

(e) Subcontractor withholding procedures. If a Contractor, after making a request for payment to the Government but before making a payment to a subcontractor for the subcontractor's performance covered by the payment request, discovers that all or a portion of the payment otherwise due such subcontractor is subject to withholding from the subcontractor in accordance with the subcontract agreement, then the Contractor shall--

(1) Subcontractor notice. Furnish to the subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon ascertaining the cause giving rise to a withholding, but prior to the due date for subcontractor payment;

(2) Contracting Officer notice. Furnish to the Contracting Officer, as soon as practicable, a copy of the notice furnished to the subcontractor pursuant to paragraph (e)(1) of this clause;

(3) Subcontractor progress payment reduction. Reduce the subcontractor's progress payment by an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (e)(1) of this clause;

(4) Subsequent subcontractor payment. Pay the subcontractor as soon as practicable after the correction of the identified subcontract performance deficiency, and--

(i) Make such payment within--

(A) Seven days after correction of the identified subcontract performance deficiency (unless the funds therefor must be recovered from the Government because of a reduction under paragraph (e)(5)(i)) of this clause; or

(B) Seven days after the Contractor recovers such funds from the Government; or

(ii) Incur an obligation to pay a late payment interest penalty computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty;

(5) Notice to Contracting Officer. Notify the Contracting Officer upon--

(i) Reduction of the amount of any subsequent certified application for payment; or

(ii) Payment to the subcontractor of any withheld amounts of a progress payment, specifying--

(A) The amounts withheld under paragraph (e)(1) of this clause; and

(B) The dates that such withholding began and ended; and

(6) Interest to Government. Be obligated to pay to the Government an amount equal to interest on the withheld payments (computed in the manner provided in 31 U.S.C. 3903(c)(1)), from the 8th day after receipt of the withheld amounts from the Government until--

(i) The day the identified subcontractor performance deficiency is corrected; or

(ii) The date that any subsequent payment is reduced under paragraph (e)(5)(i) of this clause.

(f) Third-party deficiency reports--(1) Withholding from subcontractor. If a Contractor, after making payment to a first-tier subcontractor, receives from a supplier or subcontractor of the first-tier subcontractor (hereafter referred to as a "second-tier subcontractor") a written notice in accordance with section 2 of the Act of August 24, 1935 (40 U.S.C. 270b, Miller Act), asserting a deficiency in such first-tier subcontractor's performance under the contract for which the Contractor may be ultimately liable, and the Contractor determines that all or a portion of future payments otherwise due such first-tier subcontractor is subject to withholding in accordance with the subcontract agreement, the Contractor may, without incurring an obligation to pay an interest penalty under paragraph (e)(6) of this clause--

(i) Furnish to the first-tier subcontractor a notice conforming to the standards of paragraph (g) of this clause as soon as practicable upon making such determination; and

(ii) Withhold from the first-tier subcontractor's next available progress payment or payments an amount not to exceed the amount specified in the notice of withholding furnished under paragraph (f)(1)(i) of this clause.

(2) Subsequent payment or interest charge. As soon as practicable, but not later than 7 days after receipt of satisfactory written notification that the identified subcontract performance deficiency has been corrected, the Contractor shall--

(i) Pay the amount withheld under paragraph (f)(1)(ii) of this clause to such first-tier subcontractor; or

(ii) Incur an obligation to pay a late payment interest penalty to such first-tier subcontractor computed at the rate of interest established by the Secretary of the Treasury, and published in the Federal Register, for interest payments under section 12 of the Contracts Disputes Act of 1978 (41 U.S.C. 611) in effect at the time the Contractor accrues the obligation to pay an interest penalty.

(g) Written notice of subcontractor withholding. The Contractor shall issue a written notice of any withholding to a subcontractor (with a copy furnished to the Contracting Officer), specifying--

(1) The amount to be withheld;

(2) The specific causes for the withholding under the terms of the subcontract; and

(3) The remedial actions to be taken by the subcontractor in order to receive payment of the amounts withheld.

(h) Subcontractor payment entitlement. The Contractor may not request payment from the Government of any amount withheld or retained in accordance with paragraph (d) of this clause until such time as the Contractor has determined and certified to the Contracting Officer that the subcontractor is entitled to the payment of such amount.

(i) Prime-subcontractor disputes. A dispute between the Contractor and subcontractor relating to the amount or entitlement of a subcontractor to a payment or a late payment interest penalty under a clause included in the subcontract pursuant to paragraph (c) of this clause does not constitute a dispute to which the Government is a party. The Government may not be interpleaded in any judicial or administrative proceeding involving such a dispute.

(j) Preservation of prime-subcontractor rights. Except as provided in paragraph (i) of this clause, this clause shall not limit or impair any contractual, administrative, or judicial remedies otherwise available to the Contractor or a subcontractor in the event of a dispute involving late payment or nonpayment by the Contractor or deficient subcontract performance or nonperformance by a subcontractor.

(k) Non-recourse for prime contractor interest penalty. The Contractor's obligation to pay an interest penalty to a subcontractor pursuant to the clauses included in a subcontract under paragraph (c) of this clause shall not be construed to be an obligation of the Government for such interest penalty. A cost-reimbursement claim may not include any amount for reimbursement of such interest penalty.

(l) Overpayments. If the Contractor becomes aware of a duplicate contract financing or invoice payment or that the Government has otherwise overpaid on a contract financing or invoice payment, the Contractor shall immediately notify the Contracting Officer and request instructions for disposition of the overpayment.

(End of clause)

#### 52.233-1 DISPUTES. (JUL 2002)

(a) This contract is subject to the Contract Disputes Act of 1978, as amended (41 U.S.C. 601-613).

(b) Except as provided in the Act, all disputes arising under or relating to this contract shall be resolved under this clause.

(c) Claim, as used in this clause, means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to this contract. However, a written demand or written assertion by the Contractor seeking the payment of money exceeding \$100,000 is not a claim under the Act until certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim under the Act. The submission may be converted to a claim under the Act, by complying with the submission and certification requirements of this clause, if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

(d)(1) A claim by the Contractor shall be made in writing and, unless otherwise stated in this contract, submitted within 6 years after accrual of the claim to the Contracting Officer for a written decision. A claim by the Government against the Contractor shall be subject to a written decision by the Contracting Officer.

(2)(i) The contractors shall provide the certification specified in subparagraph (d)(2)(iii) of this clause when submitting any claim -

(A) Exceeding \$100,000; or

(B) Regardless of the amount claimed, when using -



- (1) Arbitration conducted pursuant to 5 U.S.C. 575-580; or
- (2) Any other alternative means of dispute resolution (ADR) technique that the agency elects to handle in accordance with the Administrative Dispute Resolution Act (ADRA).
- (ii) The certification requirement does not apply to issues in controversy that have not been submitted as all or part of a claim.
- (iii) The certification shall state as follows: "I certify that the claim is made in good faith; that the supporting data are accurate and complete to the best of my knowledge and belief; that the amount requested accurately reflects the contract adjustment for which the Contractor believes the Government is liable; and that I am duly authorized to certify the claim on behalf of the Contractor.
- (3) The certification may be executed by any person duly authorized to bind the Contractor with respect to the claim.
- (e) For Contractor claims of \$100,000 or less, the Contracting Officer must, if requested in writing by the Contractor, render a decision within 60 days of the request. For Contractor-certified claims over \$100,000, the Contracting Officer must, within 60 days, decide the claim or notify the Contractor of the date by which the decision will be made.
- (f) The Contracting Officer's decision shall be final unless the Contractor appeals or files a suit as provided in the Act.
- (g) If the claim by the Contractor is submitted to the Contracting Officer or a claim by the Government is presented to the Contractor, the parties, by mutual consent, may agree to use alternative dispute resolution (ADR). If the Contractor refuses an offer for ADR, the Contractor shall inform the Contracting Officer, in writing, of the Contractor's specific reasons for rejecting the request.
- (h) The Government shall pay interest on the amount found due and unpaid from (1) the date the Contracting Officer receives the claim (certified, if required); or (2) the date that payment otherwise would be due, if that date is later, until the date of payment. With regard to claims having defective certifications, as defined in (FAR) 48 CFR 33.201, interest shall be paid from the date that the Contracting Officer initially receives the claim. Simple interest on claims shall be paid at the rate, fixed by the Secretary of the Treasury as provided in the Act, which is applicable to the period during which the Contracting Officer receives the claim and then at the rate applicable for each 6-month period as fixed by the Treasury Secretary during the pendency of the claim.
- (i) The Contractor shall proceed diligently with performance of this contract, pending final resolution of any request for relief, claim, appeal, or action arising under the contract, and comply with any decision of the Contracting Officer.

(End of clause)

#### 52.233-3 PROTEST AFTER AWARD (AUG. 1996)

- (a) Upon receipt of a notice of protest (as defined in FAR 33.101) or a determination that a protest is likely (see FAR 33.102(d)), the Contracting Officer may, by written order to the Contractor, direct the Contractor to stop performance of the work called for by this contract. The order shall be specifically identified as a stop-work order issued under this clause. Upon receipt of the order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the work covered by the order during the period of work stoppage. Upon receipt of the final decision in the protest, the Contracting Officer shall either--

- (1) Cancel the stop-work order; or

(2) Terminate the work covered by the order as provided in the Default, or the Termination for Convenience of the Government, clause of this contract.

(b) If a stop-work order issued under this clause is canceled either before or after a final decision in the protest, the Contractor shall resume work. The Contracting Officer shall make an equitable adjustment in the delivery schedule or contract price, or both, and the contract shall be modified, in writing, accordingly, if--

(1) The stop-work order results in an increase in the time required for, or in the Contractor's cost properly allocable to, the performance of any part of this contract; and

(2) The Contractor asserts its right to an adjustment within 30 days after the end of the period of work stoppage; provided, that if the Contracting Officer decides the facts justify the action, the Contracting Officer may receive and act upon a proposal at any time before final payment under this contract.

(c) If a stop-work order is not canceled and the work covered by the order is terminated for the convenience of the Government, the Contracting Officer shall allow reasonable costs resulting from the stop-work order in arriving at the termination settlement.

(d) If a stop-work order is not canceled and the work covered by the order is terminated for default, the Contracting Officer shall allow, by equitable adjustment or otherwise, reasonable costs resulting from the stop-work order.

(e) The Government's rights to terminate this contract at any time are not affected by action taken under this clause.

(f) If, as the result of the Contractor's intentional or negligent misstatement, misrepresentation, or miscertification, a protest related to this contract is sustained, and the Government pays costs, as provided in FAR 33.102(b)(2) or 33.104(h)(1), the Government may require the Contractor to reimburse the Government the amount of such costs. In addition to any other remedy available, and pursuant to the requirements of Subpart 32.6, the Government may collect this debt by offsetting the amount against any payment due the Contractor under any contract between the Contractor and the Government.

(End of clause)

#### 52.236-2 DIFFERING SITE CONDITIONS (APR 1984)

As prescribed in 36.502, insert the following clause in solicitations and contracts when a fixed-price construction contract or a fixed-price dismantling, demolition, or removal of improvements contract is contemplated and the contract amount is expected to exceed the small purchase limitation. The Contracting Officer may insert the clause in solicitations and contracts when a fixed-price construction or a fixed-price contract for dismantling, demolition, or removal of improvements is contemplated and the contract amount is expected to be within the small purchase limitation.

(a) The Contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of

(1) subsurface or latent physical conditions at the site which differ materially from those indicated in this contract, or

(2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inhering in work of the character provided for in the contract.

(b) The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions

do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for, performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

(c) No request by the Contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

(d) No request by the Contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract.

(End of clause)

#### 52.236-3 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK (APR 1984)

(a) The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to

(1) conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) the availability of labor, water, electric power, and roads;

(3) uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) the conformation and conditions of the ground; and (5) the character of equipment and facilities needed preliminary to and during work performance. The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding or representation is expressly stated in this contract.

(End of clause)

#### 52.236-5 MATERIAL AND WORKMANSHIP (APR 1984)

(a) All equipment, material, and articles incorporated into the work covered by this contract shall be new and of the most suitable grade for the purpose intended, unless otherwise specifically provided in this contract. References in the specifications to equipment, material, articles, or patented processes by trade name, make, or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition. The Contractor may, at its option, use any equipment, material, article, or process that, in the judgment of the Contracting

Officer, is equal to that named in the specifications, unless otherwise specifically provided in this contract.

(b) The Contractor shall obtain the Contracting Officer's approval of the machinery and mechanical and other equipment to be incorporated into the work. When requesting approval, the Contractor shall furnish to the Contracting Officer the name of the manufacturer, the model number, and other information concerning the performance, capacity, nature, and rating of the machinery and mechanical and other equipment. When required by this contract or by the Contracting Officer, the Contractor shall also obtain the Contracting Officer's approval of the material or articles which the Contractor contemplates incorporating into the work. When requesting approval, the Contractor shall provide full information concerning the material or articles. When directed to do so, the Contractor shall submit samples for approval at the Contractor's expense, with all shipping charges prepaid. Machinery, equipment, material, and articles that do not have the required approval shall be installed or used at the risk of subsequent rejection.

(c) All work under this contract shall be performed in a skillful and workmanlike manner. The Contracting Officer may require, in writing, that the Contractor remove from the work any employee the Contracting Officer deems incompetent, careless, or otherwise objectionable.

(End of clause)

#### 52.236-6 SUPERINTENDENCE BY THE CONTRACTOR (APR 1984)

At all times during performance of this contract and until the work is completed and accepted, the Contractor shall directly superintend the work or assign and have on the worksite a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the Contractor.

(End of clause)

#### 52.236-7 PERMITS AND RESPONSIBILITIES (NOV 1991)

The Contractor shall, without additional expense to the Government, be responsible for obtaining any necessary licenses and permits, and for complying with any Federal, State, and municipal laws, codes, and regulations applicable to the performance of the work. The Contractor shall also be responsible for all damages to persons or property that occur as a result of the Contractor's fault or negligence. The Contractor shall also be responsible for all materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

(End of clause)

#### 52.236-8 OTHER CONTRACTS (APR 1984)

The Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of work by any other contractor or by Government employees.

(End of clause)

52.236-9 PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS (APR 1984)

(a) The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the work site, which are not to be removed and which do not unreasonably interfere with the work required under this contract. The Contractor shall only remove trees when specifically authorized to do so, and shall avoid damaging vegetation that will remain in place. If any limbs or branches of trees are broken during contract performance, or by the careless operation of equipment, or by workmen, the Contractor shall trim those limbs or branches with a clean cut and paint the cut with a tree-pruning compound as directed by the Contracting Officer.

(b) The Contractor shall protect from damage all existing improvements and utilities

(1) at or near the work site, and

(2) on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this contract or failure to exercise reasonable care in performing the work. If the Contractor fails or refuses to repair the damage promptly, the Contracting Officer may have the necessary work performed and charge the cost to the Contractor.

(End of clause)

52.236-10 OPERATIONS AND STORAGE AREAS (APR 1984)

(a) The Contractor shall confine all operations (including storage of materials) on Government premises to areas authorized or approved by the Contracting Officer. The Contractor shall hold and save the Government, its officers and agents, free and harmless from liability of any nature occasioned by the Contractor's performance.

(b) Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Contracting Officer and shall be built with labor and materials furnished by the Contractor without expense to the Government. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at its expense upon completion of the work. With the written consent of the Contracting Officer, the buildings and utilities may be abandoned and need not be removed.

(c) The Contractor shall, under regulations prescribed by the Contracting Officer, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the Contracting Officer. When materials are transported in prosecuting the work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or local law or regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair or pay for the repair of any damaged curbs, sidewalks, or roads.

(End of clause)

52.236-11 USE AND POSSESSION PRIOR TO COMPLETION (APR 1984)

(a) The Government shall have the right to take possession of or use any completed or partially completed part of the

work. Before taking possession of or using any work, the Contracting Officer shall furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

(b) While the Government has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the work resulting from the Government's possession or use, notwithstanding the terms of the clause in this contract entitled "Permits and Responsibilities." If prior possession or use by the Government delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment shall be made in the contract price or the time of completion, and the contract shall be modified in writing accordingly.

(End of clause)

#### 52.236-12 CLEANING UP (APR 1984)

The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the work, the Contractor shall remove from the work and premises any rubbish, tools, scaffolding, equipment, and materials that are not the property of the Government. Upon completing the work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Contracting Officer.

(End of clause)

#### 52.236-13 ACCIDENT PREVENTION (NOV 1991)

(a) The Contractor shall provide and maintain work environments and procedures which will

(1) safeguard the public and Government personnel, property, materials, supplies, and equipment exposed to Contractor operations and activities;

(2) avoid interruptions of Government operations and delays in project completion dates; and

(3) control costs in the performance of this contract.

(b) For these purposes on contracts for construction or dismantling, demolition, or removal of improvements, the Contractor shall-

(1) Provide appropriate safety barricades, signs, and signal lights;

(2) Comply with the standards issued by the Secretary of Labor at 29 CFR Part 1926 and 29 CFR Part 1910; and

(3) Ensure that any additional measures the Contracting Officer determines to be reasonably necessary for the purposes are taken.

(c) If this contract is for construction or dismantling, demolition or removal of improvements with any Department of Defense agency or component, the Contractor shall comply with all pertinent provisions of the latest version of U.S. Army Corps of Engineers Safety and Health Requirements Manual, EM 385-1-1, in effect on the date of the solicitation.

(d) Whenever the Contracting Officer becomes aware of any noncompliance with these requirements or any condition which poses a serious or imminent danger to the health or safety of the public or Government personnel, the Contracting Officer shall notify the Contractor orally, with written confirmation, and request immediate initiation of corrective action. This notice, when delivered to the Contractor or the Contractor's representative at the work site, shall be deemed sufficient notice of the noncompliance and that corrective action is required. After receiving the notice, the Contractor shall immediately take corrective action. If the Contractor fails or refuses to promptly take corrective action, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. The Contractor shall not be entitled to any equitable adjustment of the contract price or extension of the performance schedule on any stop work order issued under this clause.

(5) The Contractor shall insert this clause, including this paragraph (e), with appropriate changes in the designation of the parties, in subcontracts.

(End of clause)

#### 52.236-15 SCHEDULES FOR CONSTRUCTION CONTRACTS (APR 1984)

(a) The Contractor shall, within five days after the work commences on the contract or another period of time determined by the Contracting Officer, prepare and submit to the Contracting Officer for approval three copies of a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the several salient features of the work (including acquiring materials, plant, and equipment). The schedule shall be in the form of a progress chart of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. If the Contractor fails to submit a schedule within the time prescribed, the Contracting Officer may withhold approval of progress payments until the Contractor submits the required schedule.

(b) The Contractor shall enter the actual progress on the chart as directed by the Contracting Officer, and upon doing so shall immediately deliver three copies of the annotated schedule to the Contracting Officer. If, in the opinion of the Contracting Officer, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, including those that may be required by the Contracting Officer, without additional cost to the Government. In this circumstance, the Contracting Officer may require the Contractor to increase the number of shifts, overtime operations, days of work, and/or the amount of construction plant, and to submit for approval any supplementary schedule or schedules in chart form as the Contracting Officer deems necessary to demonstrate how the approved rate of progress will be regained.

(c) Failure of the Contractor to comply with the requirements of the Contracting Officer under this clause shall be grounds for a determination by the Contracting Officer that the Contractor is not prosecuting the work with sufficient diligence to ensure completion within the time specified in the contract. Upon making this determination, the Contracting Officer may terminate the Contractor's right to proceed with the work, or any separable part of it, in accordance with the default terms of this contract.

(End of clause)

#### 52.236-17 LAYOUT OF WORK (APR 1984)

The Contractor shall lay out its work from Government established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, materials, and labor required to lay out any part of the work. The Contractor shall be responsible for executing the work to the lines and grades that may be

established or indicated by the Contracting Officer. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Contracting Officer until authorized to remove them. If such marks are destroyed by the Contractor or through its negligence before their removal is authorized, the Contracting Officer may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

(End of clause)

#### 52.236-21 SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION (FEB 1997)

(a) The Contractor shall keep on the work site a copy of the drawings and specifications and shall at all times give the Contracting Officer access thereto. Anything mentioned in the specifications and not shown on the drawings, or shown on the drawings and not mentioned in the specifications, shall be of like effect as if shown or mentioned in both. In case of difference between drawings and specifications, the specifications shall govern. In case of discrepancy in the figures, in the drawings, or in the specifications, the matter shall be promptly submitted to the Contracting Officer, who shall promptly make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Contracting Officer shall furnish from time to time such detailed drawings and other information as considered necessary, unless otherwise provided.

(b) Wherever in the specifications or upon the drawings the words "directed", "required", "ordered", "designated", "prescribed", or words of like import are used, it shall be understood that the "direction", "requirement", "order", "designation", or "prescription", of the Contracting Officer is intended and similarly the words "approved", "acceptable", "satisfactory", or words of like import shall mean "approved by," or "acceptable to", or "satisfactory to" the Contracting Officer, unless otherwise expressly stated.

(c) Where "as shown," "as indicated", "as detailed", or words of similar import are used, it shall be understood that the reference is made to the drawings accompanying this contract unless stated otherwise. The word "provided" as used herein shall be understood to mean "provide complete in place," that is "furnished and installed".

(d) Shop drawings means drawings, submitted to the Government by the Contractor, subcontractor, or any lower tier subcontractor pursuant to a construction contract, showing in detail (1) the proposed fabrication and assembly of structural elements, and (2) the installation (i.e., fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, performance and test data, and similar materials furnished by the contractor to explain in detail specific portions of the work required by the contract. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(e) If this contract requires shop drawings, the Contractor shall coordinate all such drawings, and review them for accuracy, completeness, and compliance with contract requirements and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Contracting Officer without evidence of the Contractor's approval may be returned for resubmission. The Contracting Officer will indicate an approval or disapproval of the shop drawings and if not approved as submitted shall indicate the Government's reasons therefor. Any work done before such approval shall be at the Contractor's risk. Approval by the Contracting Officer shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this contract, except with respect to variations described and approved in accordance with (f) below.

(f) If shop drawings show variations from the contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Contracting Officer approves any such variation, the Contracting Officer shall issue an appropriate contract modification, except that, if the variation is minor or does not involve a change in price or in time of performance, a modification need not be issued.



(g) The Contractor shall submit to the Contracting Officer for approval four copies (unless otherwise indicated) of all shop drawings as called for under the various headings of these specifications. Three sets (unless otherwise indicated) of all shop drawings, will be retained by the Contracting Officer and one set will be returned to the Contractor.

(End of clause)

#### 52.236-26 PRECONSTRUCTION CONFERENCE (FEB 1995)

If the Contracting Officer decides to conduct a preconstruction conference, the successful offeror will be notified and will be required to attend. The Contracting Officer's notification will include specific details regarding the date, time, and location of the conference, any need for attendance by subcontractors, and information regarding the items to be discussed.

(End of clause)

#### 52.242-13 BANKRUPTCY (JUL 1995)

In the event the Contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the Contractor agrees to furnish, by certified mail or electronic commerce method authorized by the contract, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

(End of clause)

#### 52.242-14 SUSPENSION OF WORK (APR 1984)

(a) The Contracting Officer may order the Contractor, in writing, to suspend, delay, or interrupt all or any part of the work of this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

(b) If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within a reasonable time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption, and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor, or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract. (c) A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the Contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of the suspension, delay, or

interruption, but not later than the date of final payment under the contract.

(End of clause)

#### 52.243-4 CHANGES (AUG 1987)

(a) The Contracting Officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes--

- (1) In the specifications (including drawings and designs);
- (2) In the method or manner of performance of the work;
- (3) In the Government-furnished facilities, equipment, materials, services, or site; or
- (4) Directing acceleration in the performance of the work.

(b) Any other written or oral order (which, as used in this paragraph (b), includes direction, instruction, interpretation, or determination) from the Contracting Officer that causes a change shall be treated as a change order under this clause; provided, that the Contractor gives the Contracting Officer written notice stating

- (1) the date, circumstances, and source of the order and
- (2) that the Contractor regards the order as a change order.

(c) Except as provided in this clause, no order, statement, or conduct of the Contracting Officer shall be treated as a change under this clause or entitle the Contractor to an equitable adjustment.

(d) If any change under this clause causes an increase or decrease in the Contractor's cost of, or the time required for, the performance of any part of the work under this contract, whether or not changed by any such order, the Contracting Officer shall make an equitable adjustment and modify the contract in writing. However, except for an adjustment based on defective specifications, no adjustment for any change under paragraph (b) of this clause shall be made for any costs incurred more than 20 days before the Contractor gives written notice as required. In the case of defective specifications for which the Government is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with the defective specifications.

(e) The Contractor must assert its right to an adjustment under this clause within 30 days after

(1) receipt of a written change order under paragraph (a) of this clause or (2) the furnishing of a written notice under paragraph (b) of this clause, by submitting to the Contracting Officer a written statement describing the general nature and amount of the proposal, unless this period is extended by the Government. The statement of proposal for adjustment may be included in the notice under paragraph (b) above.

(f) No proposal by the Contractor for an equitable adjustment shall be allowed if asserted after final payment under this contract.

(End of clause)

## 52.244-2 SUBCONTRACTS (AUG 1998)

(a) Definitions. As used in this clause--

Approved purchasing system means a Contractor's purchasing system that has been reviewed and approved in accordance with Part 44 of the Federal Acquisition Regulation (FAR).

Consent to subcontract means the Contracting Officer's written consent for the Contractor to enter into a particular subcontract.

Subcontract means any contract, as defined in FAR Subpart 2.1, entered into by a subcontractor to furnish supplies or services for performance of the prime contract or a subcontract. It includes, but is not limited to, purchase orders, and changes and modifications to purchase orders.

(b) This clause does not apply to subcontracts for special test equipment when the contract contains the clause at FAR 52.245-18, Special Test Equipment.

(c) When this clause is included in a fixed-price type contract, consent to subcontract is required only on unpriced contract actions (including unpriced modifications or unpriced delivery orders), and only if required in accordance with paragraph (d) or (e) of this clause.

(d) If the Contractor does not have an approved purchasing system, consent to subcontract is required for any subcontract that--

(1) Is of the cost-reimbursement, time-and-materials, or labor-hour type; or

(2) Is fixed-price and exceeds--

(i) For a contract awarded by the Department of Defense, the Coast Guard, or the National Aeronautics and Space Administration, the greater of the simplified acquisition threshold or 5 percent of the total estimated cost of the contract; or

(ii) For a contract awarded by a civilian agency other than the Coast Guard and the National Aeronautics and Space Administration, either the simplified acquisition threshold or 5 percent of the total estimated cost of the contract.

(e) If the Contractor has an approved purchasing system, the Contractor nevertheless shall obtain the Contracting Officer's written consent before placing the following subcontracts:

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(f)(1) The Contractor shall notify the Contracting Officer reasonably in advance of placing any subcontract or modification thereof for which consent is required under paragraph (c), (d), or (e) of this clause, including the following information:

(i) A description of the supplies or services to be subcontracted.

(ii) Identification of the type of subcontract to be used.

(iii) Identification of the proposed subcontractor.

(iv) The proposed subcontract price.

(v) The subcontractor's current, complete, and accurate cost or pricing data and Certificate of Current Cost or Pricing Data, if required by other contract provisions.

(vi) The subcontractor's Disclosure Statement or Certificate relating to Cost Accounting Standards when such data are required by other provisions of this contract.

(vii) A negotiation memorandum reflecting--

(A) The principal elements of the subcontract price negotiations;

(B) The most significant considerations controlling establishment of initial or revised prices;

(C) The reason cost or pricing data were or were not required;

(D) The extent, if any, to which the Contractor did not rely on the subcontractor's cost or pricing data in determining the price objective and in negotiating the final price;

(E) The extent to which it was recognized in the negotiation that the subcontractor's cost or pricing data were not accurate, complete, or current; the action taken by the Contractor and the subcontractor; and the effect of any such defective data on the total price negotiated;

(F) The reasons for any significant difference between the Contractor's price objective and the price negotiated; and

(G) A complete explanation of the incentive fee or profit plan when incentives are used. The explanation shall identify each critical performance element, management decisions used to quantify each incentive element, reasons for the incentives, and a summary of all trade-off possibilities considered.

(2) The Contractor is not required to notify the Contracting Officer in advance of entering into any subcontract for which consent is not required under paragraph (c), (d), or (e) of this clause.

(g) Unless the consent or approval specifically provides otherwise, neither consent by the Contracting Officer to any subcontract nor approval of the Contractor's purchasing system shall constitute a determination--

(1) Of the acceptability of any subcontract terms or conditions;

(2) Of the allowability of any cost under this contract; or

(3) To relieve the Contractor of any responsibility for performing this contract.

(h) No subcontract or modification thereof placed under this contract shall provide for payment on a cost-plus-a-percentage-of-cost basis, and any fee payable under cost-reimbursement type subcontracts shall not exceed the fee limitations in FAR 15.404-4(c)(4)(i).

(i) The Contractor shall give the Contracting Officer immediate written notice of any action or suit filed and prompt notice of any claim made against the Contractor by any subcontractor or vendor that, in the opinion of the Contractor, may result in litigation related in any way to this contract, with respect to which the Contractor may be entitled to reimbursement from the Government.

(j) The Government reserves the right to review the Contractor's purchasing system as set forth in FAR Subpart 44.3.

(k) Paragraphs (d) and (f) of this clause do not apply to the following subcontracts, which were evaluated during negotiations:

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 (End of clause)

#### 52.244-6 SUBCONTRACTS FOR COMMERCIAL ITEMS (APR 2003)

##### (a) Definitions.

"Commercial item", has the meaning contained in the clause at 52.202-1, Definitions.

"Subcontract", includes a transfer of commercial items between divisions, subsidiaries, or affiliates of the Contractor or subcontractor at any tier.

(b) To the maximum extent practicable, the Contractor shall incorporate, and require its subcontractors at all tiers to incorporate, commercial items or nondevelopmental items as components of items to be supplied under this contract.

(c) (1) The Contractor shall insert the following clauses in subcontracts for commercial items:

(i) 52.219-8, Utilization of Small Business Concerns (OCT 2000) (15 U.S.C. 637(d)(2) and (3)), in all subcontracts that offer further subcontracting opportunities. If the subcontract (except subcontracts to small business concerns) exceeds \$500,000 (\$1,000,000 for construction of any public facility), the subcontractor must include 52.219-8 in lower tier subcontracts that offer subcontracting opportunities.

(ii) 52.222-26, Equal Opportunity (Apr 2002) (E.O. 11246).

(iii) 52.222-35, Equal Opportunity for Special Disabled Veterans, Veterans of the Vietnam Era and Other Eligible Veterans (DEC 2001) (38 U.S.C. 4212(a)).

(iv) 52.222-36, Affirmative Action for Workers with Disabilities (JUN 1998) (29 U.S.C. 793).

(v) 52.247-64, Preference for Privately Owned U.S.-Flag Commercial Vessels (APR 2003) (46 U.S.C. Appx 1241 and 10 U.S.C. 2631) (flow down required in accordance with paragraph (d) of FAR clause 52.247-64).

(2) While not required, the Contractor may flow down to subcontracts for commercial items a minimal number of additional clauses necessary to satisfy its contractual obligations.

(d) The Contractor shall include the terms of this clause, including this paragraph (d), in subcontracts awarded under this contract.

(End of clause)

#### 52.245-2 GOVERNMENT PROPERTY (FIXED-PRICE CONTRACTS) (JUN 2003)

##### (a) Government-furnished property.

(1) Overseas contracts. If this contract is to be performed outside of the United States and its outlying areas, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(2) The delivery or performance dates for this contract are based upon the expectation that Government-furnished property suitable for use (except for property furnished "as is") will be delivered to the Contractor at the times stated in the Schedule or, if not so stated, in sufficient time to enable the Contractor to meet the contract's delivery or performance dates.

(3) If Government-furnished property is received by the Contractor in a condition not suitable for the intended use, the Contractor shall, upon receipt of it, notify the Contracting Officer, detailing the facts, and, as directed by the Contracting Officer and at Government expense, either repair, modify, return, or otherwise dispose of the property. After completing the directed action and upon written request of the Contractor, the Contracting Officer shall make an equitable adjustment as provided in paragraph (h) of this clause.

(4) If Government-furnished property is not delivered to the Contractor by the required time, the Contracting Officer shall, upon the Contractor's timely written request, make a determination of the delay, if any, caused the Contractor and shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(b) Changes in Government-furnished property. (1) The Contracting Officer may, by written notice, (i) decrease the Government-furnished property provided or to be provided under this contract, or (ii) substitute other Government-furnished property for the property to be provided by the Government, or to be acquired by the Contractor for the Government, under this contract. The Contractor shall promptly take such action as the Contracting Officer may direct regarding the removal, shipment, or disposal of the property covered by such notice.

(2) Upon the Contractor's written request, the Contracting Officer shall make an equitable adjustment to the contract in accordance with paragraph (h) of this clause, if the Government has agreed in the Schedule to make the property available for performing this contract and there is any--

(i) Decrease or substitution in this property pursuant to subparagraph (b)(1) of this clause; or

(ii) Withdrawal of authority to use this property, if provided under any other contract or lease.

(c) Title in Government property. (1) The Government shall retain title to all Government-furnished property.

(2) All Government-furnished property and all property acquired by the Contractor, title to which vests in the Government under this paragraph (collectively referred to as "Government property"), are subject to the provisions of this clause. However, special tooling accountable to this contract is subject to the provisions of the Special Tooling clause and is not subject to the provisions of this clause. Title to Government property shall not be affected by its incorporation into or attachment to any property not owned by the Government, nor shall Government property become a fixture or lose its identity as personal property by being attached to any real property.

(3) Title to each item of facilities and special test equipment acquired by the Contractor for the Government under this contract shall pass to and vest in the Government when its use in performing this contract commences or when the Government has paid for it, whichever is earlier, whether or not title previously vested in the Government.

(4) If this contract contains a provision directing the Contractor to purchase material for which the Government will reimburse the Contractor as a direct item of cost under this contract--

(i) Title to material purchased from a vendor shall pass to and vest in the Government upon the vendor's delivery of such material; and

(ii) Title to all other material shall pass to and vest in the Government upon--

(A) Issuance of the material for use in contract performance;

(B) Commencement of processing of the material or its use in contract performance; or

(C) Reimbursement of the cost of the material by the Government, whichever occurs first.

(d) Use of Government property. The Government property shall be used only for performing this contract, unless otherwise provided in this contract or approved by the Contracting Officer.

(e) Property administration. (1) The Contractor shall be responsible and accountable for all Government property provided under this contract and shall comply with Federal Acquisition Regulation (FAR) Subpart 45.5, as in effect on the date of this contract.

(2) The Contractor shall establish and maintain a program for the use, maintenance, repair, protection, and preservation of Government property in accordance with sound industrial practice and the applicable provisions of Subpart 45.5 of the FAR.

(3) If damage occurs to Government property, the risk of which has been assumed by the Government under this contract, the Government shall replace the items or the Contractor shall make such repairs as the Government directs. However, if the Contractor cannot effect such repairs within the time required, the Contractor shall dispose of the property as directed by the Contracting Officer. When any property for which the Government is responsible is replaced or repaired, the Contracting Officer shall make an equitable adjustment in accordance with paragraph (h) of this clause.

(4) The Contractor represents that the contract price does not include any amount for repairs or replacement for which the Government is responsible. Repair or replacement of property for which the Contractor is responsible shall be accomplished by the Contractor at its own expense.

(f) Access. The Government and all its designees shall have access at all reasonable times to the premises in which any Government property is located for the purpose of inspecting the Government property.

(g) Risk of loss. Unless otherwise provided in this contract, the Contractor assumes the risk of, and shall be responsible for, any loss or destruction of, or damage to, Government property upon its delivery to the Contractor or upon passage of title to the Government under paragraph (c) of this clause. However, the Contractor is not responsible for reasonable wear and tear to Government property or for Government property properly consumed in performing this contract.

(h) Equitable adjustment. When this clause specifies an equitable adjustment, it shall be made to any affected contract provision in accordance with the procedures of the Changes clause. When appropriate, the Contracting Officer may initiate an equitable adjustment in favor of the Government. The right to an equitable adjustment shall be the Contractor's exclusive remedy. The Government shall not be liable to suit for breach of contract for--

(1) Any delay in delivery of Government-furnished property;

(2) Delivery of Government-furnished property in a condition not suitable for its intended use;

(3) A decrease in or substitution of Government-furnished property; or

(4) Failure to repair or replace Government property for which the Government is responsible.

(i) Final accounting and disposition of Government property. Upon completing this contract, or at such earlier dates as may be fixed by the Contracting Officer, the Contractor shall submit, in a form acceptable to the Contracting Officer, inventory schedules covering all items of Government property (including any resulting scrap) not consumed in performing this contract or delivered to the Government. The Contractor shall prepare for shipment, deliver f.o.b. origin, or dispose of the Government property as may be directed or authorized by the Contracting Officer. The net

proceeds of any such disposal shall be credited to the contract price or shall be paid to the Government as the Contracting Officer directs.

(j) Abandonment and restoration of Contractor's premises. Unless otherwise provided herein, the Government--

(1) May abandon any Government property in place, at which time all obligations of the Government regarding such abandoned property shall cease; and

(2) Has no obligation to restore or rehabilitate the Contractor's premises under any circumstances (e.g., abandonment, disposition upon completion of need, or upon contract completion). However, if the Government-furnished property (listed in the Schedule or specifications) is withdrawn or is unsuitable for the intended use, or if other Government property is substituted, then the equitable adjustment under paragraph (h) of this clause may properly include restoration or rehabilitation costs.

(k) Communications. All communications under this clause shall be in writing.

(l) Overseas contracts. If this contract is to be performed outside of the United States of America, its territories, or possessions, the words "Government" and "Government-furnished" (wherever they appear in this clause) shall be construed as "United States Government" and "United States Government-furnished," respectively.

(End of clause)

#### 52.246-12 INSPECTION OF CONSTRUCTION (AUG 1996)

(a) Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

(b) The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

(c) Government inspections and tests are for the sole benefit of the Government and do not--

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;

(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;

(3) Constitute or imply acceptance; or

(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) of this section.

(d) The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

(e) The Contractor shall promptly furnish, at no increase in contract price, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer.



The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

(f) The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

(g) If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

(h) If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

(i) Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

(End of clause)

#### 52.246-21 WARRANTY OF CONSTRUCTION (MAR 1994)

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (i) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of--

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall--

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

(End of clause)

#### 52.248-3 VALUE ENGINEERING--CONSTRUCTION (FEB 2000)

(a) General. The Contractor is encouraged to develop, prepare, and submit value engineering change proposals (VECP's) voluntarily. The Contractor shall share in any instant contract savings realized from accepted VECP's, in accordance with paragraph (f) below.

(b) Definitions. "Collateral costs," as used in this clause, means agency costs of operation, maintenance, logistic support, or Government-furnished property.

"Collateral savings," as used in this clause, means those measurable net reductions resulting from a VECP in the agency's overall projected collateral costs, exclusive of acquisition savings, whether or not the acquisition cost changes.

"Contractor's development and implementation costs," as used in this clause, means those costs the Contractor incurs on a VECP specifically in developing, testing, preparing, and submitting the VECP, as well as those costs the Contractor incurs to make the contractual changes required by Government acceptance of a VECP.

"Government costs," as used in this clause, means those agency costs that result directly from developing and implementing the VECP, such as any net increases in the cost of testing, operations, maintenance, and logistic support. The term does not include the normal administrative costs of processing the VECP.

"Instant contract savings," as used in this clause, means the estimated reduction in Contractor cost of performance resulting from acceptance of the VECP, minus allowable Contractor's development and implementation costs, including subcontractors' development and implementation costs (see paragraph (h) below).

"Value engineering change proposal (VECP)" means a proposal that--

- (1) Requires a change to this, the instant contract, to implement; and
- (2) Results in reducing the contract price or estimated cost without impairing essential functions or characteristics; provided, that it does not involve a change--
  - (i) In deliverable end item quantities only; or
  - (ii) To the contract type only.
- (c) VECP preparation. As a minimum, the Contractor shall include in each VECP the information described in subparagraphs (1) through (7) below. If the proposed change is affected by contractually required configuration management or similar procedures, the instructions in those procedures relating to format, identification, and priority assignment shall govern VECP preparation. The VECP shall include the following:
  - (1) A description of the difference between the existing contract requirement and that proposed, the comparative advantages and disadvantages of each, a justification when an item's function or characteristics are being altered, and the effect of the change on the end item's performance.
  - (2) A list and analysis of the contract requirements that must be changed if the VECP is accepted, including any suggested specification revisions.
  - (3) A separate, detailed cost estimate for
    - (i) the affected portions of the existing contract requirement and
    - (ii) the VECP. The cost reduction associated with the VECP shall take into account the Contractor's allowable development and implementation costs, including any amount attributable to subcontracts under paragraph (h) below.
  - (4) A description and estimate of costs the Government may incur in implementing the VECP, such as test and evaluation and operating and support costs.
  - (5) A prediction of any effects the proposed change would have on collateral costs to the agency.
  - (6) A statement of the time by which a contract modification accepting the VECP must be issued in order to achieve the maximum cost reduction, noting any effect on the contract completion time or delivery schedule.
  - (7) Identification of any previous submissions of the VECP, including the dates submitted, the agencies and contract numbers involved, and previous Government actions, if known.
- (d) Submission. The Contractor shall submit VECP's to the Resident Engineer at the worksite, with a copy to the Contracting Officer.
- (e) Government action.
  - (1) The Contracting Officer will notify the Contractor of the status of the VECP within 45 calendar days after the contracting office receives it. If additional time is required, the Contracting Officer will notify the Contractor within

the 45-day period and provide the reason for the delay and the expected date of the decision. The Government will process VECP's expeditiously; however, it shall not be liable for any delay in acting upon a VECP.

If the VECP is not accepted, the Contracting Officer will notify the Contractor in writing, explaining the reasons for rejection. The Contractor may withdraw any VECP, in whole or in part, at any time before it is accepted by the Government. The Contracting Officer may require that the Contractor provide written notification before undertaking significant expenditures for VECP effort.

Any VECP may be accepted, in whole or in part, by the Contracting Officer's award of a modification to this contract citing this clause. The Contracting Officer may accept the VECP, even though an agreement on price reduction has not been reached, by issuing the Contractor a notice to proceed with the change. Until a notice to proceed is issued or a contract modification applies a VECP to this contract, the Contractor shall perform in accordance with the existing contract. The decision to accept or reject all or part of any VECP is a unilateral decision made solely at the discretion of the Contracting Officer.

(f) Sharing.

(1) Rates. The Government's share of savings is determined by subtracting Government costs from instant contract savings and multiplying the result by

(i) 45 percent for fixed-price contracts or

(ii) 75 percent for cost-reimbursement contracts.

(2) Payment. Payment of any share due the Contractor for use of a VECP on this contract shall be authorized by a modification to this contract to--

(i) Accept the VECP;

(ii) Reduce the contract price or estimated cost by the amount of instant contract savings; and

(iii) Provide the Contractor's share of savings by adding the amount calculated to the contract price or fee.

(g) Collateral savings. If a VECP is accepted, the Contracting Officer will increase the instant contract amount by 20 percent of any projected collateral savings determined to be realized in a typical year of use after subtracting any Government costs not previously offset. However, the Contractor's share of collateral savings will not exceed the contract's firm-fixed-price or estimated cost, at the time the VECP is accepted, or \$100,000, whichever is greater. The Contracting Officer is the sole determiner of the amount of collateral savings.

(h) Subcontracts. The Contractor shall include an appropriate value engineering clause in any subcontract of \$50,000 or more and may include one in subcontracts of lesser value. In computing any adjustment in this contract's price under paragraph (f) above, the Contractor's allowable development and implementation costs shall include any subcontractor's allowable development and implementation costs clearly resulting from a VECP accepted by the Government under this contract, but shall exclude any value engineering incentive payments to a subcontractor. The Contractor may choose any arrangement for subcontractor value engineering incentive payments; provided, that these payments shall not reduce the Government's share of the savings resulting from the VECP.

(i) Data. The Contractor may restrict the Government's right to use any part of a VECP or the supporting data by marking the following legend on the affected parts:

"These data, furnished under the Value Engineering-- Construction clause of contract . . . . ., shall not be disclosed outside the Government or duplicated, used, or disclosed, in whole or in part, for any purpose other than to evaluate a value engineering change proposal submitted under the clause. This restriction does not limit the

Government's right to use information contained in these data if it has been obtained or is otherwise available from the Contractor or from another source without limitations." If a VECP is accepted, the Contractor hereby grants the Government unlimited rights in the VECP and supporting data, except that, with respect to data qualifying and submitted as limited rights technical data, the Government shall have the rights specified in the contract modification implementing the VECP and shall appropriately mark the data. (The terms "unlimited rights" and "limited rights" are defined in Part 27 of the Federal Acquisition Regulation.)

(End of clause)

#### 52.249-2 TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED-PRICE) (SEP 1996)

(a) The Government may terminate performance of work under this contract in whole or, from time to time, in part if the Contracting Officer determines that a termination is in the Government's interest. The Contracting Officer shall terminate by delivering to the Contractor a Notice of Termination specifying the extent of termination and the effective date.

(b) After receipt of a Notice of Termination, and except as directed by the Contracting Officer, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:

(1) Stop work as specified in the notice.

(2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete the continued portion of the contract.

(3) Terminate all subcontracts to the extent they relate to the work terminated.

(4) Assign to the Government, as directed by the Contracting Officer, all right, title, and interest of the Contractor under the subcontracts terminated, in which case the Government shall have the right to settle or to pay any termination settlement proposal arising out of those terminations.

(5) With approval or ratification to the extent required by the Contracting Officer, settle all outstanding liabilities and termination settlement proposals arising from the termination of subcontracts; the approval or ratification will be final for purposes of this clause.

(6) As directed by the Contracting Officer, transfer title and deliver to the Government (i) the fabricated or unfabricated parts, work in process, completed work, supplies, and other material produced or acquired for the work terminated, and (ii) the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Government.

(7) Complete performance of the work not terminated.

(8) Take any action that may be necessary, or that the Contracting Officer may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Government has or may acquire an interest.

(9) Use its best efforts to sell, as directed or authorized by the Contracting Officer, any property of the types referred to in subparagraph (b)(6) of this clause; provided, however, that the Contractor (i) is not required to extend credit to any purchaser and (ii) may acquire the property under the conditions prescribed by, and at prices approved by, the Contracting Officer. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Government under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Contracting Officer.

(c) The Contractor shall submit complete termination inventory schedules no later than 120 days from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 120-day period.

(d) After expiration of the plant clearance period as defined in Subpart 45.6 of the Federal Acquisition Regulation, the Contractor may submit to the Contracting Officer a list, certified as to quantity and quality, of termination inventory not previously disposed of, excluding items authorized for disposition by the Contracting Officer. The Contractor may request the Government to remove those items or enter into an agreement for their storage. Within 15 days, the Government will accept title to those items and remove them or enter into a storage agreement. The Contracting Officer may verify the list upon removal of the items, or if stored, within 45 days from submission of the list, and shall correct the list, as necessary, before final settlement.

(e) After termination, the Contractor shall submit a final termination settlement proposal to the Contracting Officer in the form and with the certification prescribed by the Contracting Officer. The Contractor shall submit the proposal promptly, but no later than 1 year from the effective date of termination, unless extended in writing by the Contracting Officer upon written request of the Contractor within this 1-year period. However, if the Contracting Officer determines that the facts justify it, a termination settlement proposal may be received and acted on after 1 year or any extension. If the Contractor fails to submit the proposal within the time allowed, the Contracting Officer may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.

(f) Subject to paragraph (e) of this clause, the Contractor and the Contracting Officer may agree upon the whole or any part of the amount to be paid or remaining to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, whether under this paragraph (g) or paragraph (g) of this clause, exclusive of costs shown in subparagraph (g)(3) of this clause, may not exceed the total contract price as reduced by (1) the amount of payments previously made and (2) the contract price of work not terminated. The contract shall be modified, and the Contractor paid the agreed amount. Paragraph (g) of this clause shall not limit, restrict, or affect the amount that may be agreed upon to be paid under this paragraph.

(g) If the Contractor and the Contracting Officer fail to agree on the whole amount to be paid because of the termination of work, the Contracting Officer shall pay the Contractor the amounts determined by the Contracting Officer as follows, but without duplication of any amounts agreed on under paragraph (f) of this clause:

(1) The contract price for completed supplies or services accepted by the Government (or sold or acquired under subparagraph (b)(9) of this clause) not previously paid for, adjusted for any saving of freight and other charges.

(2) The total of--

(i) The costs incurred in the performance of the work terminated, including initial costs and preparatory expense allocable thereto, but excluding any costs attributable to supplies or services paid or to be paid under subparagraph (f)(1) of this clause;

(ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (g)(2)(i) of this clause; and

(iii) A sum, as profit on subdivision (g)(2)(i) of this clause, determined by the Contracting Officer under 49.202 of the Federal Acquisition Regulation, in effect on the date of this contract, to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Contracting Officer shall allow no profit under this subdivision (iii) and shall reduce the settlement to reflect the indicated rate of loss.

(3) The reasonable costs of settlement of the work terminated, including--

- (i) Accounting, legal, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data;
  - (ii) The termination and settlement of subcontracts (excluding the amounts of such settlements); and
  - (iii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
- (h) Except for normal spoilage, and except to the extent that the Government expressly assumed the risk of loss, the Contracting Officer shall exclude from the amounts payable to the Contractor under paragraph (g) of this clause, the fair value, as determined by the Contracting Officer, of property that is destroyed, lost, stolen, or damaged so as to become undeliverable to the Government or to a buyer.
- (i) The cost principles and procedures of Part 31 of the Federal Acquisition Regulation, in effect on the date of this contract, shall govern all costs claimed, agreed to, or determined under this clause.
- (j) The Contractor shall have the right of appeal, under the Disputes clause, from any determination made by the Contracting Officer under paragraph (e), (g), or (l) of this clause, except that if the Contractor failed to submit the termination settlement proposal or request for equitable adjustment within the time provided in paragraph (e) or (l), respectively, and failed to request a time extension, there is no right of appeal.
- (k) In arriving at the amount due the Contractor under this clause, there shall be deducted--
- (1) All unliquidated advance or other payments to the Contractor under the terminated portion of this contract;
  - (2) Any claim which the Government has against the Contractor under this contract; and
  - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Government.
- (l) If the termination is partial, the Contractor may file a proposal with the Contracting Officer for an equitable adjustment of the price(s) of the continued portion of the contract. The Contracting Officer shall make any equitable adjustment agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within 90 days from the effective date of termination unless extended in writing by the Contracting Officer.
- (m)(1) The Government may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the contract, if the Contracting Officer believes the total of these payments will not exceed the amount to which the Contractor will be entitled.
- (2) If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Government upon demand, together with interest computed at the rate established by the Secretary of the Treasury under 50 U.S.C. App. 1215(b)(2). Interest shall be computed for the period from the date the excess payment is received by the Contractor to the date the excess is repaid. Interest shall not be charged on any excess payment due to a reduction in the Contractor's termination settlement proposal because of retention or other disposition of termination inventory until 10 days after the date of the retention or disposition, or a later date determined by the Contracting Officer because of the circumstances.
- (n) Unless otherwise provided in this contract or by statute, the Contractor shall maintain all records and documents relating to the terminated portion of this contract for 3 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this contract. The Contractor shall make these records and documents available to the Government, at the Contractor's office, at all reasonable times, without any direct charge. If approved by the Contracting Officer, photographs, microphotographs, or other authentic reproductions may be maintained instead of original records and documents.

(End of clause)

52.249-10 DEFAULT (FIXED-PRICE CONSTRUCTION) (APR 1984)

(a) If the Contractor refuses or fails to prosecute the work or any separable part, with the diligence that will insure its completion within the time specified in this contract including any extension, or fails to complete the work within this time, the Government may, by written notice to the Contractor, terminate the right to proceed with the work (or the separable part of the work) that has been delayed. In this event, the Government may take over the work and complete it by contract or otherwise, and may take possession of and use any materials, appliances, and plant on the work site necessary for completing the work. The Contractor and its sureties shall be liable for any damage to the Government resulting from the Contractor's refusal or failure to complete the work within the specified time, whether or not the Contractor's right to proceed with the work is terminated. This liability includes any increased costs incurred by the Government in completing the work.

(b) The Contractor's right to proceed shall not be terminated nor the Contractor charged with damages under this clause, if--

(1) The delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the Contractor. Examples of such causes include

(i) acts of God or of the public enemy,

(ii) acts of the Government in either its sovereign or contractual capacity,

(iii) acts of another Contractor in the performance of a contract with the Government,

(iv) fires,

(v) floods,

(vi) epidemics,

(vii) quarantine restrictions,

(viii) strikes,

(ix) freight embargoes,

(x) unusually severe weather, or delays of subcontractors or suppliers at any tier arising from unforeseeable causes beyond the control and without the fault or negligence of both the Contractor and the subcontractors or suppliers; and

(2) The Contractor, within 10 days from the beginning of any delay (unless extended by the Contracting Officer), notifies the Contracting Officer in writing of the causes of delay. The Contracting Officer shall ascertain the facts and the extent of delay. If, in the judgment of the Contracting Officer, the findings of fact warrant such action, the time for completing the work shall be extended. The findings of the Contracting Officer shall be final and conclusive on the parties, but subject to appeal under the Disputes clause.

(c) If, after termination of the Contractor's right to proceed, it is determined that the Contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the same as if the termination had been



issued for the convenience of the Government.

The rights and remedies of the Government in this clause are in addition to any other rights and remedies provided by law or under this contract.

(End of clause)

#### 52.253-1 COMPUTER GENERATED FORMS (JAN 1991)

(a) Any data required to be submitted on a Standard or Optional Form prescribed by the Federal Acquisition Regulation (FAR) may be submitted on a computer generated version of the form, provided there is no change to the name, content, or sequence of the data elements on the form, and provided the form carries the Standard or Optional Form number and edition date.

(b) Unless prohibited by agency regulations, any data required to be submitted on an agency unique form prescribed by an agency supplement to the FAR may be submitted on a computer generated version of the form provided there is no change to the name, content, or sequence of the data elements on the form and provided the form carries the agency form number and edition date.

(6) If the Contractor submits a computer generated version of a form that is different than the required form, then the rights and obligations of the parties will be determined based on the content of the required form.

(End of clause)

#### 252.201-7000 CONTRACTING OFFICER'S REPRESENTATIVE (DEC 1991)

(a) "Definition. Contracting officer's representative" means an individual designated in accordance with subsection 201.602-2 of the Defense Federal Acquisition Regulation Supplement and authorized in writing by the contracting officer to perform specific technical or administrative functions.

(b) If the Contracting Officer designates a contracting officer's representative (COR), the Contractor will receive a copy of the written designation. It will specify the extent of the COR's authority to act on behalf of the contracting officer. The COR is not authorized to make any commitments or changes that will affect price, quality, quantity, delivery, or any other term or condition of the contract.

(End of clause)

#### 252.203-7001 PROHIBITION ON PERSONS CONVICTED OF FRAUD OR OTHER DEFENSE-CONTRACT-RELATED FELONIES (MAR 1999)

(a) Definitions. As used in this clause—

(1) "Arising out of a contract with the DoD" means any act in connection with—

(i) Attempting to obtain;

(ii) Obtaining, or

(iii) Performing a contract or first-tier subcontract of any agency, department, or component of the Department of Defense (DoD).

(2) "Conviction of fraud or any other felony" means any conviction for fraud or a felony in violation of state or Federal criminal statutes, whether entered on a verdict or plea, including a plea of *nolo contendere*, for which sentence has been imposed.

(3) "Date of conviction" means the date judgment was entered against the individual.

(b) Any individual who is convicted after September 29, 1988, of fraud or any other felony arising out of a contract with the DoD is prohibited from serving--

(1) In a management or supervisory capacity on any DoD contract or first-tier subcontract;

(2) On the board of directors of any DoD contractor or first-tier subcontractor;

(3) As a consultant, agent, or representative for any DoD contractor or first-tier subcontractor; or

(4) In any other capacity with the authority to influence, advise, or control the decisions of any DoD contractor or subcontractor with regard to any DoD contract or first-tier subcontract.

(c) Unless waived, the prohibition in paragraph (b) of this clause applies for not less than 5 years from the date of conviction.

(d) 10 U.S.C. 2408 provides that a defense contractor or first-tier subcontractor shall be subject to a criminal penalty of not more than \$500,000 if convicted of knowingly—

(1) Employing a person under a prohibition specified in paragraph (b) of this clause; or

(2) Allowing such a person to serve on the board of directors of the contractor or first-tier subcontractor.

(e) In addition to the criminal penalties contained in 10 U.S.C. 2408, the Government may consider other available remedies, such as—

(1) Suspension or debarment;

(2) Cancellation of the contract at no cost to the Government; or

(3) Termination of the contract for default.

(f) The Contractor may submit written requests for waiver of the prohibition in paragraph (b) of this clause to the Contracting Officer. Requests shall clearly identify—

(1) The person involved;

(2) The nature of the conviction and resultant sentence or punishment imposed;

(3) The reasons for the requested waiver; and

(4) An explanation of why a waiver is in the interest of national security.

(g) The Contractor agrees to include the substance of this clause, appropriately modified to reflect the identity and relationship of the parties, in all first-tier subcontracts exceeding the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation, except those for commercial items or components.

(h) Pursuant to 10 U.S.C. 2408(c), defense contractors and subcontractors may obtain information as to whether a particular person has been convicted of fraud or any other felony arising out of a contract with the DoD by contacting The Office of Justice Programs, The Denial of Federal Benefits Office, U.S. Department of Justice, telephone (202) 616-3507.

(End of clause)

#### 252.203-7002 DISPLAY OF DOD HOTLINE POSTER (DEC 1991)

(a) The Contractor shall display prominently in common work areas within business segments performing work under Department of Defense (DoD) contracts, DoD Hotline Posters prepared by the DoD Office of the Inspector General.

(b) DoD Hotline Posters may be obtained from the DoD Inspector General, ATTN: Defense Hotline, 400 Army Navy Drive, Washington, DC 22202-2884.

(7) The Contractor need not comply with paragraph (a) of this clause if it has established a mechanism, such as a hotline, by which employees may report suspected instances of improper conduct, and instructions that encourage employees to make such reports.

(End of clause)

#### 252.204-7003 CONTROL OF GOVERNMENT PERSONNEL WORK PRODUCT (APR 1992)

The Contractor's procedures for protecting against unauthorized disclosure of information shall not require Department of Defense employees or members of the Armed Forces to relinquish control of their work products, whether classified or not, to the contractor.

(End of clause)

#### 252.204-7004 REQUIRED CENTRAL CONTRACTOR REGISTRATION ALTERNATE A (NOV 2003)

(a) Definitions. As used in this clause--

“Central Contractor Registration (CCR) database” means the primary Government repository for contractor information required for the conduct of business with the Government.

“Commercial and Government Entity (CAGE) code” means--

(1) A code assigned by the Defense Logistics Information Service (DLIS) to identify a commercial or Government entity; or

(2) A code assigned by a member of the North Atlantic Treaty Organization that DLIS records and maintains in the CAGE master file. This type of code is known as an “NCAGE code.”

“Data Universal Numbering System (DUNS) number” means the 9-digit number assigned by Dun and Bradstreet, Inc. (D&B) to identify unique business entities.

“Data Universal Numbering System +4 (DUNS+4) number” means the DUNS number assigned by D&B plus a 4-character suffix that may be assigned by a business concern. (D&B has no affiliation with this 4-character suffix.) This 4-character suffix may be assigned at the discretion of the business concern to establish additional CCR records for identifying alternative Electronic Funds Transfer (EFT) accounts (see Subpart 32.11 of the Federal Acquisition Regulation) for the same parent concern.

“Registered in the CCR database” means that--

(1) The Contractor has entered all mandatory information, including the DUNS number or the DUNS+4 number, into the CCR database;

(2) The Contractor's CAGE code is in the CCR database; and

(3) The Government has validated all mandatory data fields and has marked the records “Active.”

(b)(1) By submission of an offer, the offeror acknowledges the requirement that a prospective awardee shall be registered in the CCR database prior to award, during performance, and through final payment of any contract, basic agreement, basic ordering agreement, or blanket purchasing agreement resulting from this solicitation.

(2) The offeror shall enter, in the block with its name and address on the cover page of its offer, the annotation “DUNS” or “DUNS +4” followed by the DUNS or DUNS +4 number that identifies the offeror's name and address exactly as stated in the offer. The DUNS number will be used by the Contracting Officer to verify that the offeror is registered in the CCR database.

(c) If the offeror does not have a DUNS number, it should contact Dun and Bradstreet directly to obtain one.

(1) An offeror may obtain a DUNS number--

(i) If located within the United States, by calling Dun and Bradstreet at 1-866-705-5711 or via the Internet at <http://www.dnb.com>; or

(ii) If located outside the United States, by contacting the local Dun and Bradstreet office.

(2) The offeror should be prepared to provide the following information:

(i) Company legal business.

(ii) Tradestyle, doing business, or other name by which your entity is commonly recognized.

(iii) Company Physical Street Address, City, State, and Zip Code.

(iv) Company Mailing Address, City, State and Zip Code (if separate from physical).

(v) Company Telephone Number.

(vi) Date the company was started.

(vii) Number of employees at your location.

(viii) Chief executive officer/key manager.

(ix) Line of business (industry).

(x) Company Headquarters name and address (reporting relationship within your entity).

(d) If the Offeror does not become registered in the CCR database in the time prescribed by the Contracting Officer, the Contracting Officer will proceed to award to the next otherwise successful registered Offeror.

(e) Processing time, which normally takes 48 hours, should be taken into consideration when registering. Offerors who are not registered should consider applying for registration immediately upon receipt of this solicitation.

(f) The Contractor is responsible for the accuracy and completeness of the data within the CCR database, and for any liability resulting from the Government's reliance on inaccurate or incomplete data. To remain registered in the CCR database after the initial registration, the Contractor is required to review and update on an annual basis from the date of initial registration or subsequent updates its information in the CCR database to ensure it is current, accurate and complete. Updating information in the CCR does not alter the terms and conditions of this contract and is not a substitute for a properly executed contractual document.

(g)(1)(i) If a Contractor has legally changed its business name, "doing business as" name, or division name (whichever is shown on the contract), or has transferred the assets used in performing the contract, but has not completed the necessary requirements regarding novation and change-of-name agreements in Subpart 42.12, the Contractor shall provide the responsible Contracting Officer a minimum of one business day's written notification of its intention to (A) change the name in the CCR database; (B) comply with the requirements of Subpart 42.12 of the FAR; and (C) agree in writing to the timeline and procedures specified by the responsible Contracting Officer. The Contractor must provide with the notification sufficient documentation to support the legally changed name.

(ii) If the Contractor fails to comply with the requirements of paragraph (g)(1)(i) of this clause, or fails to perform the agreement at paragraph (g)(1)(i)(C) of this clause, and, in the absence of a properly executed novation or change-of-name agreement, the CCR information that shows the Contractor to be other than the Contractor indicated in the contract will be considered to be incorrect information within the meaning of the "Suspension of Payment" paragraph of the electronic funds transfer (EFT) clause of this contract.

(2) The Contractor shall not change the name or address for EFT payments or manual payments, as appropriate, in the CCR record to reflect an assignee for the purpose of assignment of claims (see FAR Subpart 32.8, Assignment of Claims). Assignees shall be separately registered in the CCR database. Information provided to the Contractor's CCR record that indicates payments, including those made by EFT, to an ultimate recipient other than that Contractor will be considered to be incorrect information within the meaning of the "Suspension of payment" paragraph of the EFT clause of this contract.

(h) Offerors and Contractors may obtain information on registration and annual confirmation requirements via the internet at <http://www.ccr.gov> or by calling 1-888-227-2423, or 269-961-5757.

(End of clause)

## 252.205-7000 PROVISION OF INFORMATION TO COOPERATIVE AGREEMENT HOLDERS (DEC 1991)

(a) Definition.

"Cooperative agreement holder" means a State or local government; a private, nonprofit organization; a tribal organization (as defined in section 4(c) of the Indian Self-Determination and Education Assistance Act (Pub. L. 93-

268; 25 U.S.C. 450 (c)); or an economic enterprise (as defined in section 3(e) of the Indian Financing Act of 1974 (Pub. L. 93-362; 25 U.S.C. 1452(e))) whether such economic enterprise is organized for profit or nonprofit purposes; which has an agreement with the Defense Logistics Agency to furnish procurement technical assistance to business entities.

(b) The Contractor shall provide cooperative agreement holders, upon their request, with a list of those appropriate employees or offices responsible for entering into subcontracts under defense contracts. The list shall include the business address, telephone number, and area of responsibility of each employee or office.

(c) The Contractor need not provide the listing to a particular cooperative agreement holder more frequently than once a year.

(End of clause)

252.209-7000 ACQUISITION FROM SUBCONTRACTORS SUBJECT TO ONSITE INSPECTION UNDER THE INTERMEDIATE-RANGE NUCLEAR FORCES (INF) TREATY (NOV 1995)

(a) The Contractor shall not deny consideration for a subcontract award under this contract to a potential subcontractor subject to on-site inspection under the INF Treaty, or a similar treaty, solely or in part because of the actual or potential presence of Soviet inspectors at the subcontractor's facility, unless the decision is approved by the Contracting Officer.

(b) The Contractor shall incorporate this clause, including this paragraph (b), in all solicitations and contracts exceeding the simplified acquisition threshold in part 13 of the Federal Acquisition Regulation, except those for commercial items.

(End of clause)

252.219-7003 SMALL, SMALL DISADVANTAGED AND WOMEN-OWNED SMALL BUSINESS SUBCONTRACTING PLAN (DOD CONTRACTS) (APR. 1996)

This clause supplements the Federal Acquisition Regulation 52.219-9, Small, Small Disadvantaged and Women-Owned Small Business Subcontracting Plan, clause of this contract.

(a) *Definitions. Historically black colleges and universities*, as used in this clause, means institutions determined by the Secretary of Education to meet the requirements of 34 CFR 608.2. The term also means any nonprofit research institution that was an integral part of such a college or university before November 14, 1986.

*Minority institutions*, as used in this clause, means institutions meeting the requirements of section 1046(3) of the Higher Education Act of 1965 (20 U.S.C. 1135d-5(3)). The term also includes Hispanic-serving institutions as defined in section 316(b)(1) of such Act (20 U.S.C. 1059c(b)(1)).

(b) Except for company or division-wide commercial items subcontracting plans, the term *small disadvantaged business*, when used in the FAR 52.219-9 clause, includes historically black colleges and universities and minority institutions, in addition to small disadvantaged business concerns.

(c) Work under the contract or its subcontracts shall be credited toward meeting the small disadvantaged business concern goal required by paragraph (d) of the FAR 52.219-9 clause when:

- (1) It is performed on Indian lands or in joint venture with an Indian tribe or a tribally-owned corporation, and
- (2) It meets the requirements of 10 U.S.C. 2323a.
- (d) Subcontracts awarded to workshops approved by the Committee for Purchase from People Who are Blind or Severely Disabled (41 U.S.C. 46-48), may be counted toward the Contractor's small business subcontracting goal.
- (e) A mentor firm, under the Pilot Mentor-Protege Program established under Section 831 of Pub. L. 101-510, as amended, may count toward its small disadvantaged business goal, subcontracts awarded--
- (f) The master plan approval referred to in paragraph (f) of the FAR 52.219-9 clause is approval by the Contractor's cognizant contract administration activity.
- (g) In those subcontracting plans which specifically identify small, small disadvantaged, and women-owned small businesses, the Contractor shall notify the Administrative Contracting Officer of any substitutions of firms that are not small, small disadvantaged, or women-owned small businesses for the firms listed in the subcontracting plan. Notifications shall be in writing and shall occur within a reasonable period of time after award of the subcontract. Contractor-specified formats shall be acceptable.

(End of clause)

252.223-7001 HAZARD WARNING LABELS (DEC 1991)

- (a) "Hazardous material," as used in this clause, is defined in the Hazardous Material Identification and Material Safety Data clause of this contract.
- (b) The Contractor shall label the item package (unit container) of any hazardous material to be delivered under this contract in accordance with the Hazard Communication Standard (29 CFR 1910.1200 et seq). The Standard requires that the hazard warning label conform to the requirements of the standard unless the material is otherwise subject to the labeling requirements of one of the following statutes:
  - (1) Federal Insecticide, Fungicide and Rodenticide Act;
  - (2) Federal Food, Drug and Cosmetics Act;
  - (3) Consumer Product Safety Act;
  - (4) Federal Hazardous Substances Act; or
  - (5) Federal Alcohol Administration Act.
- (c) The Offeror shall list which hazardous material listed in the Hazardous Material Identification and Material Safety Data clause of this contract will be labeled in accordance with one of the Acts in paragraphs (b)(1) through (5) of this clause instead of the Hazard Communication Standard. Any hazardous material not listed will be interpreted to mean that a label is required in accordance with the Hazard Communication Standard.

MATERIAL (If None, Insert "None.")

ACT

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

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(d) The apparently successful Offeror agrees to submit, before award, a copy of the hazard warning label for all hazardous materials not listed in paragraph (c) of this clause. The Offeror shall submit the label with the Material Safety Data Sheet being furnished under the Hazardous Material Identification and Material Safety Data clause of this contract.

(e) The Contractor shall also comply with MIL-STD-129, Marking for Shipment and Storage (including revisions adopted during the term of this contract).

(End of clause)

#### 252.223-7004 DRUG-FREE WORK FORCE (SEP 1988)

##### (a) Definitions.

(1) "Employee in a sensitive position," as used in this clause, means an employee who has been granted access to classified information; or employees in other positions that the Contractor determines involve national security; health or safety, or functions other than the foregoing requiring a high degree of trust and confidence.

(2) "Illegal drugs," as used in this clause, means controlled substances included in Schedules I and II, as defined by section 802(6) of title 21 of the United States Code, the possession of which is unlawful under chapter 13 of that Title. The term "illegal drugs" does not mean the use of a controlled substance pursuant to a valid prescription or other uses authorized by law.

(b) The Contractor agrees to institute and maintain a program for achieving the objective of a drug-free work force. While this clause defines criteria for such a program, contractors are encouraged to implement alternative approaches comparable to the criteria in paragraph (c) that are designed to achieve the objectives of this clause.

(c) Contractor programs shall include the following, or appropriate alternatives:

(1) Employee assistance programs emphasizing high level direction, education, counseling, rehabilitation, and coordination with available community resources;

(2) Supervisory training to assist in identifying and addressing illegal drug use by Contractor employees;

(3) Provision for self-referrals as well as supervisory referrals to treatment with maximum respect for individual confidentiality consistent with safety and security issues;

(4) Provision for identifying illegal drug users, including testing on a controlled and carefully monitored basis. Employee drug testing programs shall be established taking account of the following:

(i) The Contractor shall establish a program that provides for testing for the use of illegal drugs by employees in sensitive positions. The extent of and criteria for such testing shall be determined by the Contractor based on considerations that include the nature of the work being performed under the contract, the employee's duties, and efficient use of Contractor resources, and the risks to health, safety, or national security that could result from the failure of an employee adequately to discharge his or her position.

(ii) In addition, the Contractor may establish a program for employee drug testing--

(A) When there is a reasonable suspicion that an employee uses illegal drugs; or

(B) When an employees has been involved in an accident or unsafe practice;



(C) As part of or as a follow-up to counseling or rehabilitation for illegal drug use;

(D) As part of a voluntary employee drug testing program.

(iii) The Contractor may establish a program to test applicants for employment for illegal drug use.

(iv) For the purpose of administering this clause, testing for illegal drugs may be limited to those substances for which testing is prescribed by section 2..1 of subpart B of the "Mandatory Guidelines for Federal Workplace Drug Testing Programs" (53 FR 11980 (April 11, 1988), issued by the Department of Health and Human Services.

(d) Contractors shall adopt appropriate personnel procedures to deal with employees who are found to be using drugs illegally. Contractors shall not allow any employee to remain on duty or perform in a sensitive position who is found to use illegal drugs until such times as the Contractor, in accordance with procedures established by the Contractor, determines that the employee may perform in such a position.

(e) The provisions of this clause pertaining to drug testing program shall not apply to the extent that are inconsistent with state or local law, or with an existing collective bargaining agreement; provided that with respect to the latter, the Contractor agrees those issues that are in conflict will be a subject of negotiation at the next collective bargaining session.

(End of clause)

#### 252.223-7006 PROHIBITION ON STORAGE AND DISPOSAL OF TOXIC AND HAZARDOUS MATERIALS (APR 1993)

(a) "Definitions".

As used in this clause --

(1) "Storage" means a non-transitory, semi-permanent or permanent holding, placement, or leaving of material. It does not include a temporary accumulation of a limited quantity of a material used in or a waste generated or resulting from authorized activities, such as servicing, maintenance, or repair of Department of Defense (DoD) items, equipment, or facilities.

(2) "Toxic or hazardous materials" means:

(i) Materials referred to in section 101(14) of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980 (42 U.S.C. 9601(14)) and materials designated under section 102 of CERCLA (42 U.S.C. 9602) (40 CFR part 302);

(ii) Materials that are of an explosive, flammable, or pyrotechnic nature; or

(iii) Materials otherwise identified by the Secretary of Defense as specified in DoD regulations.

(b) In accordance with 10 U.S.C. 2692, the Contractor is prohibited from storing or disposing of non-DoD-owned toxic or hazardous materials on a DoD installation, except to the extent authorized by a statutory exception to 10 U.S.C. 2692 or as authorized by the Secretary of Defense or his designee.

(End of clause)

#### 252.225-7031 SECONDARY ARAB BOYCOTT OF ISRAEL (APR 2003)

(a) Definitions. As used in this provision--

(1) Foreign person means any person (including any individual, partnership, corporation, or other form of association) other than a United States person.

(2) United States person is defined in 50 U.S.C. App. 2415(2) and means--

(i) Any United States resident or national (other than an individual resident outside the United States who is employed by other than a United States person);

(ii) Any domestic concern (including any permanent domestic establishment of any foreign concern); and

(iii) Any foreign subsidiary or affiliate (including any permanent foreign establishment) of any domestic concern that is controlled in fact by such domestic concern.

(b) Certification. If the offeror is a foreign person, the offeror certifies, by submission of an offer, that it--

(1) Does not comply with the Secondary Arab Boycott of Israel; and

(2) Is not taking or knowingly agreeing to take any action, with respect to the Secondary Boycott of Israel by Arab countries, which 50 U.S.C. App. 2407(a) prohibits a United States person from taking.

(End of provision)

#### 252.226-7001 Utilization of Indian Organizations and Indian-Owned Economic Enterprises-DoD Contracts (Sep 2001)

(a) Definitions. As used in this clause--

“Indian” means any person who is a member of any Indian tribe, band, group, pueblo, or community that is recognized by the Federal Government as eligible for services from the Bureau of Indian Affairs (BIA) in accordance with 25 U.S.C. 1452(c) and any “Native” as defined in the Alaska Native Claims Settlement Act (43 U.S.C. 1601).

“Indian organization” means the governing body of any Indian tribe or entity established or recognized by the governing body of an Indian tribe for the purposes of 25 U.S.C. Chapter 17.

“Indian-owned economic enterprise” means any Indian-owned (as determined by the Secretary of the Interior) commercial, industrial, or business activity established or organized for the purpose of profit, provided that Indian ownership constitutes not less than 51 percent of the enterprise.

“Indian tribe” means any Indian tribe, band, group, pueblo, or community, including native villages and native groups (including corporations organized by Kenai, Juneau, Sitka, and Kodiak) as defined in the Alaska Native Claims Settlement Act, that is recognized by the Federal Government as eligible for services from BIA in accordance with 25 U.S.C. 1452 (c).

“Interested party” means a contractor or an actual or prospective offeror whose direct economic interest would be affected by the award of a subcontract or by the failure to award a subcontract.

(b) The Contract shall use its best efforts to give Indian organizations and Indian-owned economic enterprises the maximum practicable opportunity to participate in the subcontracts it awards, to the fullest extent consistent with efficient performance of the contract.

(c) The Contracting Officer and the Contractor, acting in good faith, may rely on the representation of an Indian organization or Indian-owned economic enterprise as to its eligibility, unless and interested party challenges its status or the Contracting Officer has independent reason to question that status.

(d) In the event of a challenge to the representation of a subcontractor, the Contracting Officer will refer the matter to the U.S. Department of the Interior, Bureau of Indian Affairs, Attn: Chief, Division of Contracting and Grants Administration, 1849 C Street NW, MS-2626-MIB, Washington, DC 20240-4000. The BIA will determine the eligibility and will notify the Contracting Officer. No incentive payment will be made--

(1) Within 59 working days of subcontract award;

(2) While a challenge is pending; or

(3) If a subcontractor is determined to be an ineligible participant.

(e)(1) The Contractor, on its own behalf or on behalf of a subcontractor at any tier, may request an adjustment under the Indian Incentive Program to the following:

(i) The estimated cost of cost-type contract.

(ii) The target cost of a cost-plus-incentive-fee contract.

(iii) The target cost and ceiling price of a fixed-price incentive contract.

(iv) The price of a firm-fixed-price contract.

(2) The amount of the adjustment that may be made to the contract is 5 percent of the estimated cost, target cost, or firm-fixed price included in the subcontract initially awarded to the Indian organization or Indian-owned economic enterprise.

(3) The Contractor has the burden of proving the amount claimed and must assert its request for an adjustment prior to completion of contract performance.

(4) The Contracting Officer, subject to the terms and conditions of the contract and the availability of funds, will authorize an incentive payment of 5 percent of the amount paid to the subcontractor.

(5) If the Contractor requests and receives an adjustment on behalf of a subcontractor, the Contractor is obligated to pay the subcontractor the adjustment.

(f) The Contractor shall insert the substance of this clause, including this paragraph (f), in all subcontracts that--

(1) Are for other than commercial items; and

(2) Are expected to exceed the simplified acquisition threshold in Part 2 of the Federal Acquisition Regulation.

(End of clause)

(a) Shop drawings for construction means drawings, submitted to the Government by the Construction Contractor, subcontractor or any lower-tier subcontractor pursuant to a construction contract, showing in detail (i) the proposed fabrication and assembly of structural elements and (ii) the installation (i.e., form, fit, and attachment details) of materials or equipment. The Government may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this contract.

(b) This clause, including this paragraph (b), shall be included in all subcontracts hereunder at any tier.

#### 252.231-7000 SUPPLEMENTAL COST PRINCIPLES (DEC 1991)

When the allowability of costs under this contract is determined in accordance with part 31 of the Federal Acquisition Regulation (FAR), allowability shall also be determined in accordance with part 231 of the Defense FAR Supplement, in effect on the date of this contract.

(End of clause)

#### 252.236-7000 MODIFICATION PROPOSALS - PRICE BREAKDOWN. (DEC 1991)

(a) The Contractor shall furnish a price breakdown, itemized as required and within the time specified by the Contracting Officer, with any proposal for a contract modification.

(b) The price breakdown --

(1) Must include sufficient detail to permit an analysis of profit, and of all costs for --

(i) Material;

(ii) Labor;

(iii) Equipment;

(iv) Subcontracts; and

(v) Overhead; and

(2) Must cover all work involved in the modification, whether the work was deleted, added, or changed.

(c) The Contractor shall provide similar price breakdowns to support any amounts claimed for subcontracts.

(d) The Contractor's proposal shall include a justification for any time extension proposed.

#### 252.236-7001 CONTRACT DRAWINGS, MAPS, AND SPECIFICATIONS (AUG 2000)

(a) The Government will provide to the Contractor, without charge, one set of contract drawings and specifications, except publications incorporated into the technical provisions by reference, in electronic or paper media as chosen by the Contracting Officer.

(b) The Contractor shall--

- (1) Check all drawings furnished immediately upon receipt;
- (2) Compare all drawings and verify the figures before laying out the work;
- (3) Promptly notify the Contracting Officer of any discrepancies;
- (4) Be responsible for any errors that might have been avoided by complying with this paragraph (b); and
- (5) Reproduce and print contract drawings and specifications as needed.

(c) In general--

- (1) Large-scale drawings shall govern small-scale drawings; and
- (2) The Contractor shall follow figures marked on drawings in preference to scale measurements.
- (d) Omissions from the drawings or specifications or the misdescription of details of work that are manifestly necessary to carry out the intent of the drawings and specifications, or that are customarily performed, shall not relieve the Contractor from performing such omitted or misdescribed details of the work. The Contractor shall perform such details as if fully and correctly set forth and described in the drawings and specifications.
- (e) The work shall conform to the specifications and the contract drawings identified on the following index of drawings:

Title	File	Drawing No.
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(End of clause)

#### 252.236-7008 CONTRACT PRICES - BIDDING SCHEDULES. (DEC 1991)

(a) The Government's payment for the items listed in the Bidding Schedule shall constitute full compensation to the Contractor for --

- (1) Furnishing all plant, labor, equipment, appliances, and materials; and
- (2) Performing all operations required to complete the work in conformity with the drawings and specifications.

(b) The Contractor shall include in the prices for the items listed in the Bidding Schedule all costs for work in the specifications, whether or not specifically listed in the Bidding Schedule.

#### 252.242-7000 POSTAWARD CONFERENCE (DEC 1991)

The Contractor agrees to attend any postaward conference convened by the contracting activity or contract administration office in accordance with Federal Acquisition Regulation subpart 42.5.

(End of clause)

#### 252.243-7001 PRICING OF CONTRACT MODIFICATIONS (DEC 1991)

When costs are a factor in any price adjustment under this contract, the contract cost principles and procedures in FAR part 31 and DFARS part 231, in effect on the date of this contract, apply.

#### 252.243-7002 REQUESTS FOR EQUITABLE ADJUSTMENT (MAR 1998)

(a) The amount of any request for equitable adjustment to contract terms shall accurately reflect the contract adjustment for which the Contractor believes the Government is liable. The request shall include only costs for performing the change, and shall not include any costs that already have been reimbursed or that have been separately claimed. All indirect costs included in the request shall be properly allocable to the change in accordance with applicable acquisition regulations.

(b) In accordance with 10 U.S.C. 2410(a), any request for equitable adjustment to contract terms that exceeds the simplified acquisition threshold shall bear, at the time of submission, the following certificate executed by an individual authorized to certify the request on behalf of the Contractor:

I certify that the request is made in good faith, and that the supporting data are accurate and complete to the best of my knowledge and belief.

-----  
(Official's Name)

-----  
(Title)

(c) The certification in paragraph (b) of this clause requires full disclosure of all relevant facts, including--

(1) Cost or pricing data if required in accordance with subsection 15.403-4 of the Federal Acquisition Regulation (FAR); and

(2) Information other than cost or pricing data, in accordance with subsection 15.403-3 of the FAR, including actual cost data and data to support any estimated costs, even if cost or pricing data are not required.

(d) The certification requirement in paragraph (b) of this clause does not apply to----

(1) Requests for routine contract payments; for example, requests for payment for accepted supplies and services, routine vouchers under a cost-reimbursement type contract, or progress payment invoices; or

(2) Final adjustment under an incentive provision of the contract.

#### 252.246-7001 WARRANTY OF DATA (DEC 1991)

(a) Definition. "Technical data" has the same meaning as given in the clause in this contract entitled, Rights in Technical Data and Computer Software.

(b) Warranty. Notwithstanding inspection and acceptance by the Government of technical data furnished under this contract, and notwithstanding any provision of this contract concerning the conclusiveness of acceptance, the Contractor warrants that all technical data delivered under this contract will at the time of delivery conform with the specifications and all other requirements of this contract. The warranty period shall extend for three years after completion of the delivery of the line item of data (as identified in DD Form 1423, Contract Data Requirements List) of which the data forms a part; or any longer period specified in the contract.

(c) Contractor Notification. The Contractor agrees to notify the Contracting Officer in writing immediately of any breach of the above warranty which the Contractor discovers within the warranty period.

(d) Remedies. The following remedies shall apply to all breaches of the warranty, whether the Contractor notifies the Contracting Officer in accordance with paragraph (c) of this clause or if the Government notifies the Contractor of the breach in writing within the warranty period:

(1) Within a reasonable time after such notification, the Contracting Officer may--

(i) By written notice, direct the Contractor to correct or replace at the Contractor's expense the nonconforming technical data promptly; or

(ii) If the Contracting Officer determines that the Government no longer has a requirement for correction or replacement of the data, or that the data can be more reasonably corrected by the Government, inform the Contractor by written notice that the Government elects a price or fee adjustment instead of correction or replacement.

(2) If the Contractor refuses or fails to comply with a direction under paragraph (d)(1)(i) of this clause, the Contracting Officer may - within a reasonable time of the refusal or failure--

(i) By contract or otherwise, correct or replace the nonconforming technical data and charge the cost to the Contractor; or

(ii) Elect a price or fee adjustment instead of correction or replacement.

(3) The remedies in this clause represent the only way to enforce the Government's rights under this clause.

(e) The provisions of this clause apply anew to that portion of any corrected or replaced technical data furnished to the Government under paragraph (d)(1)(i) of this clause.

(End of clause)

#### 252.247-7024 NOTIFICATION OF TRANSPORTATION OF SUPPLIES BY SEA (MAR 2000)

(a) The Contractor has indicated by the response to the solicitation provision, Representation of Extent of Transportation by Sea, that it did not anticipate transporting by sea any supplies. If, however, after the award of this contract, the Contractor learns that supplies, as defined in the Transportation of Supplies by Sea clause of this contract, will be transported by sea, the Contractor --

(1) Shall notify the Contracting Officer of that fact; and

(2) Hereby agrees to comply with all the terms and conditions of the Transportation of Supplies by Sea clause of this contract.

(b) The Contractor shall include this clause; including this paragraph (b), revised as necessary to reflect the relationship of the contracting parties--

(1) In all subcontracts under this contract, if this contract is a construction contract; or

(2) If this contract is not a construction contract, in all subcontracts under this contract that are for--

(i) Noncommercial items; or

(ii) Commercial items that--

(A) The Contractor is reselling or distributing to the Government without adding value (generally, the Contractor does not add value to items that it subcontracts for f.o.b. destination shipment);

(B) Are shipped in direct support of U.S. military contingency operations, exercises, or forces deployed in humanitarian or peacekeeping operations; or

(C) Are commissary or exchange cargoes transported outside of the Defense Transportation System in accordance with 10 U.S.C. 2643.

(End of clause)



## Section 00800 - Special Contract Requirements

W9123604B0009 DREDGING MTLs

## DREDGING AND DREGE RELATED MARINE

The Contractor shall comply with the provisions of EM 385-1-1. If the Contractor is a currently accepted participant in the Dredging Contractors of America (DCA)/United States Army Corps of Engineers (USACE) Dredging Safety Management Program (DSMP), as determined by the DCA/USACE Joint Committee, and holds a current valid Certificate of Compliance for both the Contractor Program and the Dredge(s) to be used to perform the work under this contract, the Contractor may, in lieu of the submission of an Accident Prevention Plan (APP),

- (8) make available for review, upon request, the Contractor's current Safety Management System (SMS) documentation,
- (9) submit to the Contracting Officer the current valid Company Certificate of Compliance for its SMS,
- (10) submit the current dredge(s) Certificate of Compliance based on third party audit, and
- (11) submit for review and acceptance, site-specific addenda to the SMS as specified in the solicitation.

## CLAUSES INCORPORATED BY FULL TEXT

## 52.211-10 COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK (APR 1984)

The Contractor shall be required to (a) commence work under this contract within 15 calendar days after the date the Contractor receives the notice to proceed, (b) prosecute the work diligently, and (c) complete the entire work ready for use not later than 60 calendar days. \* The time stated for completion shall include final cleanup of the premises.

Should the total quantity of material to be paid for and actually removed under this contract exceed the quantity from the Bidding Schedule, additional time will be allowed at the rate of one day for each 10,000 cubic yards in excess of the estimated quantity.

(End of clause)

## 52.211-12 LIQUIDATED DAMAGES--CONSTRUCTION (SEP 2000)

(a) If the Contractor fails to complete the work within the time specified in the contract, the Contractor shall pay liquidated damages to the Government in the amount of \$450.00 for each calendar day of delay until the work is completed or accepted.

(b) If the Government terminates the Contractor's right to proceed, liquidated damages will continue to accrue until the work is completed. These liquidated damages are in addition to excess costs of repurchase under the Termination clause.

(End of clause)

## 52.236-1 PERFORMANCE OF WORK BY THE CONTRACTOR (APR 1984)

The Contractor shall perform on the site, and with its own organization, work equivalent to at least twenty-five percent of the total amount of work to be performed under the contract. This percentage may be reduced by a supplemental agreement to this contract if, during performing the work, the Contractor requests a reduction and the Contracting Officer determines that the reduction would be to the advantage of the Government.

(End of clause)

## 52.236-4 PHYSICAL DATA (APR 1984)

Data and information furnished or referred to below is for the Contractor's information. The Government shall not be responsible for any interpretation of or conclusion drawn from the data or information by the Contractor.

(a) The indications of physical conditions on the drawings and in the specifications are the result of site investigations by . . . . . [insert a description of investigational methods used, such as surveys, auger borings, core borings, test pits, probings, test tunnels].

(b) Weather conditions . . . . . (insert a summary of weather records and warnings).

(c) Transportation facilities . . . . . (insert a summary of transportation facilities providing access from the site, including information about their availability and limitations).

(d) . . . . . (insert other pertinent information).

(End of clause)

## 52.236-14 AVAILABILITY AND USE OF UTILITY SERVICES (APR 1984)

(a) The Government shall make all reasonably required amounts of utilities available to the Contractor from existing outlets and supplies, as specified in the contract. Unless otherwise provided in the contract, the amount of each utility service consumed shall be charged to or paid for by the Contractor at prevailing rates charged to the Government or, where the utility is produced by the Government, at reasonable rates determined by the Contracting Officer. The Contractor shall carefully conserve any utilities furnished without charge.

(b) The Contractor, at its expense and in a workmanlike manner satisfactory to the Contracting Officer, shall install and maintain all necessary temporary connections and distribution lines, and all meters required to measure the amount of each utility used for the purpose of determining charges. Before final acceptance of the work by the Government, the Contractor shall remove all the temporary connections, distribution lines, meters, and associated paraphernalia.

(End of clause)

## 52.249-5000 BASIS FOR SETTLEMENT OF PROPOSALS

Actual costs will be used to determine equipment costs for a settlement proposal submitted on the total cost basis under FAR 49.206-2(b). In

evaluating a terminations settlement proposal using the total cost basis, the following principles will be applied to determine allowable equipment costs:

(12) Actual costs for each piece of equipment, or groups of similar serial or series

equipment, need not be available in the contractor's accounting records to determine total actual equipment costs.

(13) If equipment costs have been allocated to a contract using predetermined rates , those charges will be adjusted to actual costs.

(3) Recorded job costs adjusted for unallowable expenses will be used to determine equipment operating expenses.

(4) Ownership costs (depreciation) will be determined using the contractor's depreciation schedule (subject to the provisions of FAR 31.205-11).

(5) License, taxes, storage and insurance costs are normally recovered as an indirect expense and unless the contractor charges these costs directly to contracts, they will be recovered through the indirect expense rate.

(End of Clause)

#### E4LC11 DEPARTMENT OF LABOR WAGE DECISION (CONSTRUCTION)

Any contract awarded as a result of this solicitation will be subject to the U.S. Department of Labor Wage Decision(s) provided following Section 00800, identified as

#### E4LC12 REQUIRED INSURANCE

The contractor shall procure and maintain during the entire period of performance under this contract, the following minimum insurance:

TYPE	AMOUNT
Workers Compensation	As required by State law
Employer's Liability	\$100,000 per person
General Liability	\$500,000 per occurrence
Motor Vehicle Liability (for each motor vehicle):	
Bodily injury or death	\$200,000 per person
	\$500,000 per occurrence
Property damage	\$20,000 per occurrence

Prior to commencement of work hereunder, the contractor shall furnish to the Contracting Officer a certificate or written statement of the above required insurance. The policies evidencing required insurance shall contain an endorsement to the effect that cancellation or any material change in the policies adversely affecting the interests of the Government in such insurance shall not be effective for such period as may be prescribed by the laws of the State in which this contract is to be performed and in no event less than 30 days after written notice thereof to the Contracting Officer.

#### E4LC13 PERFORMANCE OF WORK BY CONTRACTOR

Offeror's attention is directed to FAR 52.236-1, "Performance of Work by Contractor." Contractor is required to furnish a description of the work which will be performed by his own organization, (e.g., earthwork, paving, etc.), the percentage of the total work this represents, and the estimated cost thereof. Such description of work to be performed by the contractor's own organization shall be provided to the Contracting Officer within 10 days of contract award.

#### E4LC 14 PERFORMANCE EVALUATION OF CONTRACTOR

As a minimum, the Contractor's performance will be evaluated upon final acceptance of the work. However, interim evaluations may be prepared at any time during contract performance when determined to be in the best interest of the Government. The format for the evaluation will be DD Form 2626, and the Contractor will be rated either "Outstanding," "Satisfactory," or "Unsatisfactory" in the areas of Contractor Quality Control, Timely Performance, Effectiveness of Management, Compliance with Labor Standards, and Compliance with Safety Standards. The Contractor will be advised on any unsatisfactory rating, either in an individual element or in the overall rating, prior to completing the evaluation; all contractor comments will be made a part of the official record. In compliance with DOD FAR Supplement 236.201, Performance Evaluation Reports will be available to all DOD Contracting Offices for their future use in determining contractor responsibility.

#### E4LC15 LOCATION OF SITE ON A GOVERNMENT RESERVATION

The site of the work is on a government reservation and all rules and regulations issued by the Commanding Officer covering general safety, security, and sanitary requirements, etc., shall be observed by the contractor.

#### E4LC16 ACCIDENT PREVENTION PLAN

In accordance with the clause entitled "Accident Prevention," the contractor will not be allowed to commence work on the job site until an acceptable accident prevention plan has been submitted. The contractor will receive official notification of the acceptance of his accident prevention plan.

#### E4LC28 IDENTIFICATION OF CORRESPONDENCE

All correspondence and data submitted by the contractor under this contract shall reference the contract number.

#### E4LC42 CONTRACTOR PLANT IDENTIFICATION

The contractor's company name/logo shall be permanently and prominently affixed to the port and starboard sides of floating plant and to each side of all land vehicles deployed on an assigned project site. All floating plant shall clearly and conspicuously display Coast Guard personnel rating capacities.

E4LC46

## UNAUTHORIZED INSTRUCTIONS FROM GOVERNMENT OR OTHER PERSONNEL

The contractor shall not accept instructions issued by any person, employed by the U.S. Government or otherwise, other than the Contracting Officer or the Authorized Representative of the Contracting Officer acting within the limits of his/her authority as defined in the Designation of Authority letter. A copy of the Designation of Authority letter will be furnished to the contractor at time of contract award.

General Decision Number VA030070 06/13/2003 VA70

Superseded General Decision No. VA020070

State: Virginia

Construction Type:  
DREDGING

County(ies):

ACCOMACK	MATHEWS	POQUOSON*
GLOUCESTER	MIDDLESEX	PORTSMOUTH*
ISLE OF WIGHT	NORTHAMPTON	VIRGINIA BEACH*
LANCASTER	NORTHUMBERLAND	YORK

\*INDEPENDENT CITIES

HOPPER DREDGING CONSTRUCTION PROJECTS

Modification Number	Publication Date
0	06/13/2003

COUNTY(ies):

ACCOMACK	MATHEWS	POQUOSON*
GLOUCESTER	MIDDLESEX	PORTSMOUTH*
ISLE OF WIGHT	NORTHAMPTON	VIRGINIA BEACH*
LANCASTER	NORTHUMBERLAND	YORK

SUVA2025A 03/01/1991

Rates	Fringes
-------	---------

SELF-PROPELLED HOPPER DREDGES:

Drag Tenders	8.21
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Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29 CFR 5.5(a)(1)(ii)).

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In the listing above, the "SU" designation means that rates listed under that identifier do not reflect collectively bargained wage and fringe benefit rates. Other designations indicate unions whose rates have been determined to be prevailing.

#### WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- \* an existing published wage determination
- \* a survey underlying a wage determination
- \* a Wage and Hour Division letter setting forth a position on a wage determination matter
- \* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations  
Wage and Hour Division  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator  
U.S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board  
U. S. Department of Labor  
200 Constitution Avenue, N. W.  
Washington, D. C. 20210

4.) All decisions by the Administrative Review Board are final.  
END OF GENERAL DECISION

SPECIFICATIONS  
FOR  
DREDGING THIMBLE SHOAL CHANNEL  
CHESAPEAKE BAY, VIRGINIA

PREPARED  
AND  
ISSUED BY  
DEPARTMENT OF THE ARMY  
NORFOLK DISTRICT, CORPS OF ENGINEERS  
OPERATIONS BRANCH  
WATERFIELD BUILDING  
803 FRONT STREET  
NORFOLK, VIRGINIA 23510-1096



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DIVISION 09 - Not Used

DIVISION 10 - Not Used

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DIVISION 14 - Not Used

DIVISION 15 - Not Used

DIVISION 16 - Not Used

-- End of Project Table of Contents --

## SECTION 01005

## PROJECT WORK REQUIREMENTS AND RESTRICTIONS

1/04

## PART 1 GENERAL

## 1.1 SUBMITTALS

The Contractor shall make submittals for the following listed reports and certificates as required by the specifications. The Contracting Officer may request submittals in addition to those specified when deemed necessary to adequately describe the work. Units of weights and measures used on all submittals shall be the same as those used in the contract drawings. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved by the Contractor's Quality Control (CQC) representative and each item shall be stamped, signed, and dated by the CQC representative indicating action taken in accordance with SECTION 01451. Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for information only. When used, a designation following the "G" designation identifies the office that will review the submittal for the Government. The following shall be submitted in accordance with Section 01330 SUBMITTAL PROCEDURES:

## SD-01 Preconstruction and Postconstruction Submittals

## Dredging Intent Notification

Prior to commencement of dredging, submit a copy of intention to start dredging notification at same time sent to Department of Environmental Quality.

## Report of Dredging

Upon completion of dredging, submit a copy of completed Report of Dredging with data as specified to Department of Environmental Quality.

## Advance Notice for Dredging

Contractor advance notice for dredging.

## Designated Acceptance Section Plan; G

The Contractor's Plan for completing the scheduled work in suitable sections for timely acceptance by the Government.

## Acceptance Section Survey Reports

Contractor request for Acceptance Section Survey Reports that will constitute before dredging surveys.

## 1.2 SPECIAL WORK RESTRICTIONS AND REQUIREMENTS

The work consists of maintenance dredging portions of the Thimble Shoal Channel to a depth of 51 feet MLLW with 1 foot of allowable overdepth. The Contractor shall perform the scheduled work with a hopper dredge and place the dredged material in the Government-furnished Dam Neck Ocean Dredged Material Disposal Site as indicated. All dredging, transport and placement of dredged material under this contract shall be in compliance with all conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit and National Marine Fisheries Service (NMFS) Biological Opinion that are included as a part of this contract at the end of SECTION 01355 ENVIRONMENTAL PROTECTION. The contract plans and specifications have been prepared to comply with this Permit and Biological Opinion that were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior-approved in writing by the Contracting Officer, and any non-compliance with or violation of the conditions stated in the Permit or Biological Opinion, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the Permit or Biological Opinion noted herein may result in revocation of the Permit for the project and may result in criminal and civil penalties against the Contractor.

#### 1.2.1 Acceptance Sections

Prior to the Contractor's submission of a request for a before dredging survey and any dredging, the Contractor shall submit a Plan to designate the order and timeliness to complete suitable acceptance sections for the type and number of plant to be used in the dredging work. The Contractor Designated Acceptance Section Plan shall be submitted to the Contracting Officer in accordance with SECTION 01451 for review and approval. Contractor designated acceptance sections shall be for contiguous areas, the full width of the channel, identified by station numbers, and shall not exceed four acceptance sections for the entire dredging area. The Contractor shall accomplish the complete dredging of each Contractor designated acceptance section in accordance with the approved Designated Acceptance Section Plan and the paragraph entitled "CONTINUITY OF WORK" of this section.

#### 1.2.2 Special Requirements at Dam Neck Ocean Dredged Material Disposal Site

All activities at Dam Neck Ocean Dredged Material Disposal Site shall be conducted in accordance with the requirements of SECTION 01355 ENVIRONMENTAL PROTECTION. The material excavated from the Thimble Shoal Channel shall be transported and deposited within the sub-areas shown and in the manner indicated on the contract drawings. The Contractor shall assure the dredged material is uniformly deposited within each respective sub-area in a manner such that the deposited material does not form mounds above a depth of 35-feet below mean lower low water.

#### 1.2.3 Security and Public Safety of Work Areas

The dredging area and Dam Neck Ocean Dredged Material Disposal Site are accessible to the general boating public; however, the Contractor is informed the Government will not undertake to exclude the public or restrict public access to the dredging or placement areas during the work. The Contractor shall be solely responsible for protection of the public at all times for the duration of the contract and fully comply with the provisions of OSHA safe working practices and the Safety and Accident Prevention requirements of these specifications. Upon receipt of his Notice to Proceed, the Contractor shall request the U.S. Coast Guard to provide lighted special-purpose, placement area marker buoys in the scheduled work areas at Dam Neck Ocean Dredged Material Disposal Site. The failure of the U.S. Coast Guard to provide and maintain such marker buoys shall have no bearing on the Contractor's responsibility to properly locate and use the placement area as indicated. Unless directed otherwise, the Contractor may perform the scheduled dredging work 24 hours a day, 7 days a week. All lighting associated with the project shall be limited to the immediate area of active construction only. Such lighting shall be shielded, low-pressure sodium vapor lights directed to the maximum extent practical away from populated areas where applicable and to avoid excessive illumination of the water.

#### 1.2.4 Noise Control and Abatement

The Contractor shall employ the use of properly installed and maintained mufflers, silencers, and manufacturer's recommended sound suppressors on all plant, machinery, and equipment used on this work. The use of sound signals such as whistles, horns, or bells shall not be used if two-way radio communication can accomplish the required function. The Contractor shall not use sound signals, with the exception of those signals required for vessel operations by the U.S. Coast Guard, during the time between sunset and sunrise.

#### 1.2.5 Coordination with Other Contractors

During the period of this contract, other contracts may be in force for the construction of other features of work on or adjacent to the site of work being accomplished under this contract. The Contractor shall arrange his plant and shall schedule and perform this work so as to effectively cooperate with all other contractors and Government agencies. It shall be the responsibility of the Contractor on this contract to be fully informed of the extent of the limits of work to be performed by other contractors. Should there be any conflict between these limits, the Contractor shall immediately notify the Contracting Officer of the conflict, and the Contracting Officer's decision shall be final.

#### 1.3 NOTIFICATIONS OF INTENT TO DREDGE AND REPORTS OF DREDGING

Notifications giving the dates and locations the Contractor intends to start dredging shall be prepared and sent to the agencies as specified below. The Contractor shall prepare a Dredging Intent Notification and Report of Dredging giving all data as indicated and send to the respective Environmental Agency as specified. When the Contractor sends a Notification or Report to a respective agency, a copy shall at the same time be furnished to the Contracting Officer. The Contractor shall include the

Virginia Water Protection (VWP) Permit Number on all Notifications and Reports.

#### 1.3.1 Dredging Intent Notification to the Virginia Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, attention Bert Parolari, 5636 Southern Boulevard, Virginia Beach, Virginia 23462, in writing, at least 15 calendar days prior to commencement of dredging operations under this contract. The Contractor shall include the Virginia Water Protection (VWP) Permit Number on all correspondence and reports sent to the Department of Environmental Quality.

#### 1.3.2 Report of Dredging to the Department of Environmental Quality

The Contractor shall notify the Virginia Department of Environmental Quality, attention Bert Parolari, 5636 Southern Boulevard, Virginia Beach, Virginia 23462, in writing, within 30 calendar days of completion of dredging operations. The Contractor shall include in the Report the following information to the Virginia Department of Environmental Quality:

- (a) Date on which dredging operations started.
- (b) Date on which dredging operations were completed.
- (c) Amount of material dredged (in cubic yards)

#### 1.4 PHYSICAL DATA

##### 1.4.1 Physical Conditions Information

The physical conditions indicated on the drawings and in the specifications are the result of site investigations and surveys. Information and data furnished or referred to below is furnished for the Contractor's information; however, it shall be expressly understood that the Government will not be responsible for any interpretation or conclusion drawn from this information or data by the Contractor. The approximate mean range of tide at the dredging area is noted on the respective drawings. The dredging and placement areas are exposed and high winds and seas may at times cause suspension of work. The mean range of tide is 2.61-feet at the Chesapeake Bay Bridge-Tunnel Fishing Pier with greater ranges during storm events.

##### 1.4.1.1 Additional Information for Local Physical Conditions

The Contractor shall consult the following publications for additional information on local conditions:

- a. United States Coast Pilot 3, Atlantic Coast, Sandy Hook to Cape Henry, published annually by the National Ocean Service.
- b. Tide Tables, High and Low Water Predictions, East Coast of North and South America, published annually by the National Ocean Service.
- c. Tide Current Tables, Atlantic Coast of North America, published annually by the National Ocean Service.

d. Local Notice to Mariners, published by the 5th U.S. Coast Guard District and the broadcast local notice to mariners.

#### 1.4.2 Site Related Weather Conditions

Complete weather forecasts, records and reports may be obtained from the National Weather Service in Wakefield, Virginia, telephone (757) 899-4200, Menu selection service or operator assisted as applicable. The Contractor shall satisfy himself as to the hazards likely to arise from the weather conditions during the dredging period. The locations of the work are somewhat protected; however, storms and severe winds may cause suspension of dredging work for short periods.

#### 1.4.3 Obstruction of Channel

The Government will not undertake to keep the area of channels free from vessels or other obstructions, except to the extent of such regulations, if any, as may be prescribed by the Secretary of the Army, in accordance with the provisions of Section 7 of the River and Harbor Act, approved 3 August 1917. The Contractor will be required to conduct the work in such manner as to obstruct navigation as little as possible, and in case the Contractor's plant so obstructs the channel as to make difficult or endanger the passage of vessels, said plant shall be promptly moved on the approach of any vessel to such an extent as may be necessary to afford a practicable passage. Upon the completion of the work, the Contractor shall promptly remove his plant, including ranges, buoys, piles, and other marks placed by him under this contract in navigable water or on shore.

#### 1.4.4 Responsibility

The Contractor shall hold and save harmless the United States, its officers, and employees from all claims that may arise as a result of the Contractor's negligence in connection with the work performed under the contract, from noncompliance by the Contractor with the provisions of the contract drawings and specifications, or from the instruction of the Contracting Officer.

#### 1.4.5 Condition of Dredging Areas

The plans for dredging show the condition of the respective dredging areas at the dates shown. There are not any known cables, pipes, that cross the areas to be dredged; however, the Chesapeake Bay Bridge-Tunnel is in the vicinity of the area to be dredged and the Contractor shall exercise due care in all dredging and attendant plant operations to prevent damage to adjacent and substrata structures, bulkheads, piers, docks, mooring piles, and any existing items to remain in the work area during dredging operations. The dredging areas may contain trash, debris, and small obstructions not shown on the plans for dredging.

#### 1.4.6 Channel Traffic

The channel traffic consists of a wide variety of types and sizes of vessels, including large deep-draft commercial bulk carriers, tankers, container vessels, and Naval vessels. Hampton Roads is also the home base

for shallow and medium draft commercial seafood vessels, barges, tugs, pleasure crafts, and various other crafts. The Contractor shall expect that the vessel traffic will cause periodic delays and interruptions of his operations.

#### 1.4.7 Oyster Grounds

There are no known oyster grounds in the vicinity of the areas to be dredged.

### 1.5 LAYOUT OF WORK AND SURVEYS

#### 1.5.1 General

The Contractor shall be responsible for the layout of all work and have all markings placed in the field marked by a licensed Professional Engineer or Surveyor currently licensed in the Commonwealth of Virginia. The markings shall be placed in the immediate work areas only and shall be removed once a work area has been accepted. The Contractor shall provide the Contracting Officer written Advance Notice for Dredging at least 14 calendar days in advance of commencement of dredging and dredged material placement operations to assure the completion of the initial Government verification review. The Government shall verify all remaining markings as the dredging and dredged material placement operations are allowed to proceed. As applicable, the Government will furnish within 14 calendar days of receipt of a written request by the Contractor, the corner point coordinates for each contract dredging area or acceptance section, and the coordinates and monument descriptions for the existing horizontal control within vicinity of the work areas. All requests shall be addressed to U.S. Army Corps of Engineers, Norfolk District, Operations Branch, Navigation Support and Survey Section, CENAO-TS-ON, 803 Front Street, Norfolk, Virginia 23510-1096. Point of contact concerning this request is Chief, Navigation Support and Survey Section, telephone (757) 441-7125, or FAX (757) 441-7664. The Contractor shall be responsible for using this information to dredge within the areas and prisms as shown, and to deposit the dredged material at the locations indicated. The Contractor shall establish and maintain at his own expense all markings of the dredging and placement areas and shall remove same upon completion of the work. The contract completion time will not be extended due to failure of the Contractor to adequately establish and maintain his markings of the work areas.

##### 1.5.1.1 Electronic Survey and Dredge Positioning Systems

The Contractor shall utilize electronic survey and dredge positioning systems to perform all scheduled dredging and dredged material placement operations. All electronic survey and dredge positioning systems equipment and the work accomplished with the use of the systems shall be reviewed and certified as accurate by the Contractor's Quality Control Manager. This signed certification shall be submitted as a part of the Daily Report of Operations in accordance with the requirements of SECTION 01451 to assure that all work performed with the use of the equipment and systems meets contract requirements.

#### 1.5.2 Before Dredging Survey



The Contractor shall give the Contracting Officer written notice for Acceptance Section Survey Reports at least 14 calendar days prior to arrival of the dredge plant at the first work area or acceptance section, and shall furnish written notice at least 14 work days in advance of need for subsequent before dredging surveys. It is understood that the surveys made in response to notice by the Contractor will constitute the before dredging survey and that any subsequent surveys occasioned through Contractor delays will be charged against the Contractor at a rate of \$5,000 per day. The Contracting Officer will not be responsible for any delays in the commencement of work caused by incomplete surveys if the Contractor fails to provide adequate advance written notice as specified.

#### 1.5.3 Datum and Bench Marks

The plane of reference shall be Mean Lower Low Water (MLLW) as established by National Ocean Service (NOS), as used on the drawings and in these specifications. On 21 April 2003, the National Oceanic and Atmospheric Administration, National Ocean Service (NOS) updated the National Tidal Datum Epoch (NTDE) from the 1960-1978 epoch to the 1983-2001 epoch. The Contractor is informed the drawings and specifications for this contract have been prepared to the NTDE (1960-1978) and, accordingly, all work to be performed under this contract shall be accomplished to the NTDE (1960-1978). Conversion of tidal datum and benchmark elevations referenced to tidal datum updated by the NOS shall be the Contractor's responsibility. When applicable, information regarding conversion factors is available upon request from the Chief, Navigation Support and Survey Section, telephone (757) 441-7125, the project Survey Manager, telephone (757) 441-7666. The following listed benchmark is referenced on the drawing and shall be used by the Contractor for the locations specified:

BENCH MARK: NOS Tidal Bench Mark NO 3 1975  
ELEVATION: 27.35 Feet above Mean Lower Low Water (NOS)

The bench mark is located on the Chesapeake Bay Bridge-Tunnel, set flush in the concrete bulkhead at the extreme North end of the South island, 45.6 feet North of the North face of the air exchange building, 23.0 feet East-north-east of the center of a 2.3-foot diameter manhole cover, 15.2 feet West of the navigation light (green), and 2.0 feet South of the North edge of the bulkhead.

#### 1.5.4 Use of Coast Guard Navigation Aid Structures

The Commander, Fifth Coast Guard District, has authorized the Norfolk District, Corps of Engineers, and its Contractors to use fixed Federal aids to navigation structures, established and maintained by the U. S. Coast Guard, for support of temporary dredging tide gauges when performing Federal dredging operations. If a Contractor chooses to use navigation aid structures for this purpose, he shall abide by the following requirements:

- a. The Contractor shall advise the Commander, Fifth Coast Guard District, Aids to Navigation Branch, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704, in writing, of his intention to

attach tide gauges to navigation aid and structures, prior to commencing a dredging project. This notice shall include the name of each aid to navigation to which tide gauges are to be attached, and the anticipated dates the gauges will be attached and removed. A copy of this notice shall be furnished at this time to the Contracting Officer.

b. The Contractor shall be required to remove any temporary tide gauges immediately upon completion of dredging operations and demobilization of dredging plant. The Contractor shall at his expense repair or replace any aids that he has damaged or destroyed as a result of the Contractor's use of such aids.

c. This provision refers only to Federal aids to navigation structures and does not authorize the Contractor to utilize aids that are not established and maintained by the U. S. Coast Guard. This provision also does not authorize the Contractor to utilize Federal navigation aid structures for any purposes other than the support of temporary tide gauges.

## 1.6 INSPECTION

### 1.6.1 General Inspection Requirements

The presence of the construction representative shall not relieve the Contractor of responsibility for the proper execution of the work in accordance with the specifications. The Contractor will be required:

a. To furnish, on the request of the Contracting Officer or any construction representative, the use of such boats, boatmen, laborers, and material forming a part of the ordinary and usual equipment and crew of the dredging plant as may be reasonably necessary in inspecting and supervising the dredging areas.

b. To furnish, on the request of the Contracting Officer or any construction representative, suitable transportation from all points within the placement area, to and from the various pieces of plant and the staging areas, and within the material placement area as may be reasonably necessary in inspecting and supervising the work. Should the Contractor refuse, neglect, or delay compliance with these requirements, the specific facilities may be furnished and maintained by the Contracting Officer, and any resultant cost incurred by the government will be deducted from any amounts due or to become due the Contractor.

## 1.7 SHOALING

### 1.7.1 Shoaling Prior to Dredging

The drawings and quantity estimates are based on the condition of the dredging areas at the time of the most recent surveys; however, the actual quantities to be dredged will be computed from surveys made immediately before dredging. Any shoaling that has developed, subsequent to the surveys indicated on the drawings and contiguous to the areas indicated to be dredged under this contract, shall be removed by the Contractor at the

contract unit price for dredging, including any applicable unit price adjustments if so directed by the Contracting Officer. Any such shoaling within contiguous areas will be included as part of the required dredging prism for the purposes of CONTRACT CLAUSE "VARIATION IN ESTIMATED QUANTITIES".

#### 1.7.2 Shoaling Subsequent to Dredging

If, before the contract is completed, shoaling occurs in any section previously accepted, including shoaling in the finished basin, because of the natural lowering of the side slopes, re-dredging at contract price, including any applicable unit price adjustments, within the limit of available funds, may be done if agreeable to both the Contractor and the Contracting Officer.

#### 1.8 FINAL EXAMINATION AND ACCEPTANCE

As soon as practicable after the completion of the entire work or any portion of the work which in the opinion of the Contracting Officer will not be subject to damage by further operations under the contract, such work will be thoroughly examined at the cost and expense of the Government by sounding, as determined by the Contracting Officer. Should any shoals, lumps, or other lack of contract depth be disclosed by this examination, the Contractor will be required to remove same by dredging at the contract rate for dredging, but if the bottom is soft and the shoal areas are small and form no material obstruction to navigation, the removal of such shoal may be waived at the discretion of the Contracting Officer. The Contractor shall provide adequate advance notice to the Contracting Officer of the completion of dredging of each acceptance section to insure prompt performance of the after dredging acceptance surveys. The Contractor shall provide the notice in writing at least 10 calendar days in advance of anticipated completion of each section of work. If the Contractor fails to provide this advance notice, the Contracting Officer will not be responsible for any delays caused by incomplete surveys. The Contractor will be notified when soundings are to be made, and may accompany the survey party. When the area is found to be in satisfactory condition, it will be accepted. Should more than two sounding operations by the Government over an area be necessary by reason of work for the removal of shoals disclosed at a prior sounding, the cost of such third and any subsequent sounding operations will be charged against the Contractor at the rate of \$5,000 per day for each day in which the Government Plant is engaged in sounding or is en route to or from the site or held at or near the said site for such operations. Final acceptance of the whole or a part of the work and the deductions or corrections of deductions made thereon will not be reopened after having once been made, except on evidence of collusion, fraud, or obvious error, and the acceptance of a completed section shall not change the time of payment of the retained percentages of the whole or any part of the work.

#### 1.9 SIGNAL LIGHTS

The Contractor shall display signal lights and conduct his operations in accordance with the General Regulations of the Department of the Army and of the Coast Guard governing lights and day signals to be displayed by

towing vessels with tows on which no signals can be displayed, vessels working on wrecks, dredges, and vessels engaged in laying cables or pipe or in submarine or bank protection operations, lights to be displayed on dredge pipelines, and day signals to be displayed by vessels of more than 65 feet in length moored or anchored in a fairway or channel, and the passing by other vessels of floating plant working in navigable channels, as approved by the Secretary of the Army and the Commandant, U. S. Coast Guard.

#### 1.10 EQUIPMENT OWNERSHIP AND OPERATING EXPENSE SCHEDULE

##### 1.10.1 Costs

Allowable cost for construction and marine plant and equipment in sound workable condition owned or controlled and furnished by a Contractor or subcontractor at any tier shall be based on actual cost data when the Government can determine both ownership and operating costs for each piece of equipment or equipment groups of similar serial and series from the Contractor's accounting records. When both ownership and operating costs cannot be determined from the Contractor's accounting records, equipment costs shall be based upon the applicable provisions of EP 1110-1-8, "Construction Equipment Ownership and Operating Expense Schedule", Region II. Working conditions shall be considered to be average for determining equipment rates using the schedule unless specified otherwise by the Contracting Officer. For equipment not included in the schedule, rates for comparable pieces of equipment may be used or a rate may be developed using the formula provided in the schedule. For forward pricing, the schedule in effect at the time of negotiations shall apply. For retrospective pricing, the schedule in effect at the time the work was performed shall apply.

##### 1.10.2 Rentals

Equipment rental costs are allowable, subject to the provisions of FAR 31.105(d)(ii) and FAR 31.205-36 substantiated by certified copies of paid invoices. Rates for equipment rented from an organization under common control, lease-purchase or sale-leaseback arrangements will be determined using the schedule except that rental costs leased from an organization under common control that has an established practice of leasing the same or similar equipment to unaffiliated lessees are allowable. Costs for major repairs and overhaul are unallowable.

##### 1.10.3 Data

When actual equipment costs are proposed and the total amount of the pricing action is over \$25,000, cost or pricing data shall be submitted on the Standard Form 1411, "Contract Pricing Proposal Cover Sheet". By submitting cost or pricing data, the Contractor grants to the Contracting Officer or an authorizing representative the right to examine those books, records, documents and other supporting data that will permit evaluation of the proposed equipment costs. After price agreement the Contractor shall certify that the equipment costs or pricing data submitted are accurate, complete and current.

#### 1.11 BRIDGE-TO-BRIDGE RADIO COMMUNICATION

In order that radio communication may be made with passing vessels, all dredges engaged in work under this contract shall be equipped with bridge-to-bridge radio telephone equipment in accordance with 33 USC CHAPTER 24 , as applicable. The radio telephone equipment shall operate on a single channel very high frequency (VHF), FM, on a frequency of 156.65 megahertz with low power output having a communication range of approximately ten miles. The Federal Communications Commission has approved the frequency.

#### 1.11.1 Radio

The Contractor shall provide the Government construction representative a portable radio capable of communicating with the dredge for the duration of work under this contract. The Contractor shall maintain the radio as required.

#### 1.12 NOTIFICATION OF COAST GUARD

Prior to commencement of work on this contract, the Contractor shall notify the Commander, Fifth Coast Guard District of his intended operations to dredge and request that it be published in the Local Notice to Mariners. This notification must be given in sufficient time so that it appears in the Notice to Mariners at least 5 workdays prior to the commencement of this contract.

##### 1.12.1 Local Notice To Mariners

The Local Notice To Mariners (LNM) for the Fifth Coast Guard District is available by phone at (757) 398-6367. Additionally, LNM are on the Internet at:

<http://www.navcen.uscg.gov/lnm/d5/default.htm>, and  
e-mail address: D5Local@LANTD5.uscg.mil.

The LNM is the primary means for disseminating information concerning aids to navigation, hazards to navigation, and other items of marine information of interest to mariners on the waters of the United States, its territories, and possessions. These notices are essential to all navigators for the purpose of keeping their charts, light lists, Coast Pilots and other nautical publications up-to-date. These notices are published weekly. They may be obtained free of charge, by making application to the Fifth Coast Guard District, Federal Building, 431 Crawford Street, Portsmouth, Virginia 23704. If the Contractor encounters any objects on the channel bottom during dredging operations or transport of his plant that could be a hazard to navigation, he shall notify the Coast Guard immediately as to location and at the same time notify the Contracting Officer.

##### 1.12.2 Navigation Aids

The Contractor shall not relocate or move any aids to navigation that have been established by the U.S. Coast Guard. If it becomes necessary to have any aid to navigation moved in order to complete dredging operations under

this contract, the Contractor shall notify the U.S. Coast Guard in writing at the address above with a copy to the Contracting Officer not less than 15 calendar days prior to such need for movement. The Contractor shall notify the U.S. Coast Guard of the approximate time the navigation aid may be relocated to its original position. All notifications to the U.S. Coast Guard shall at the same time be provided to the Contracting Officer and recorded in the Daily Report of Operations. In the event that the Contractor disturbs or damages any navigation aid during work operations, which includes during mobilization or demobilization of his plant, the Contractor shall immediately stop the activity which disturbed or damaged the navigation aid, take immediate corrective action to prevent further disturbances or damage, and shall notify the Coast Guard immediately as to location, and at the same time notify the Contracting Officer.

#### 1.13 ENVIRONMENTAL LITIGATION

##### 1.13.1 Litigation

If the performance of all or any part of the work is suspended, delayed, or interrupted due to an order of a court of competent jurisdiction as a result of environmental litigation, as defined below, the Contracting Officer, at the request of the Contractor, shall determine whether the order is due in any part to the acts or omissions of the Contractor or a subcontractor at any tier not required by the terms of this contract. If it is determined that the order is not due in any part to acts or omissions of the Contractor or a subcontractor at any tier other than as required by the terms of this contract, such suspension, delay, or interruption shall be considered as if ordered by the Contracting Officer in the administration of this contract under the terms of the "Suspension of Work" clause of this contract. The period of such suspension, delay, or interruption shall be considered unreasonable, and an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) as provided in that clause, subject to all the provisions thereof. The term "environmental litigation" means, a lawsuit alleging that the work will have an adverse effect on the environment or that the Government has not duly considered, either substantively or procedurally, the effect of the work on the environment.

#### 1.14 HISTORICAL AND ARCHAEOLOGICAL FINDS

Federal legislation provides for the protection, preservation, and collection of scientific, prehistoric, historic, and archaeological data, including relics and specimens that might otherwise be lost as a result of any Federal construction project. Should the Contractor, or any of the Contractor's employees, or parties operating or associated with the Contractor, in the performance of this contract discover evidence of possible scientific, prehistoric, historic, or archaeological data, the Contractor shall immediately cease work at that location, and notify the Contracting Officer, giving the location and nature of the findings. The Contractor shall forward written confirmation to the Contracting Officer as directed. The Contractor shall exercise care so as not to disturb or damage shipwrecks, artifacts or fossils uncovered during excavation, dredging and material placement operations, and shall provide such cooperation and assistance as may be necessary to preserve the findings for

removal or other disposition. Any person who, without written permission, injures, destroys, excavates, appropriates, moves or removes any historic or prehistoric artifact, object of antiquity, or archaeological resource is subject to arrest and penalty of law. Where appropriate by reason of discovery, the Contracting Officer may order delays in the time of performance or changes in the work, or both. If such delays or changes are ordered, an equitable adjustment will be made in accordance with the applicable clauses of the contract.

#### 1.15 PROFIT

##### 1.15.1 Weighted Guidelines

Weighted guidelines method of determining profit shall be used on any equitable adjustment change order or modification issued under this contract. The profit factors, expressed as a percent, shall be as follows:

Factor	Rate	Weight	Value
Degree of Risk	20		
Relative difficulty of work	15		
Size of Job	15		
Period of performance	15		
Contractor's investment	5		
Assistance by Government	5		
Subcontracting	25		
	<u>100</u>		

##### 1.15.2 Values

Based on the circumstances of each procurement action, each of the above factors shall be weighted from .03 to .12 as indicated below. The value shall be obtained by multiplying the rate by the weight. The value column when totaled indicates the fair and reasonable profit percentage under the circumstances of the particular procurement.

###### 1.15.2.1 Degree of Risk

Where the work involves no risk or the degree of risk is very small, the weighting should be .03; as the degree of risk increases, the weighting should be increased up to a maximum of .12. Lump sum items will have, generally, a higher weighted value than the unit price items for which quantities are provided. Other things to consider: the portion of the work to be done by subcontractors, nature of work, where work is to be performed, reasonableness of negotiated costs, amount of labor included in costs, and whether the negotiation is before or after performance of work.

###### 1.15.2.2 Relative Difficulty of Work

If the work is most difficult and complex, the weighting should be .12 and should be proportionately reduced to .03 on the simplest of jobs. This factor is tied in to some extent with the degree of risk. Some things to consider: the nature of the work, by whom it is to be done, where, and what is the time schedule.

## 1.15.2.3 Size of Job

All work not in excess of \$100,000 shall be weighted at .12. Work estimated between \$100,000 and \$5,000,000 shall be proportionately weighted from .12 to .05.

## 1.15.2.4 Periods of Performance

Jobs in excess of 24 months are to be weighted at .12. Jobs of lesser duration are to be proportionately weighted to a minimum of .03 for jobs not to exceed 30 days. No weight where additional time not required.

## 1.15.2.5 Contractor's Investment

To be weighted from .03 to .12 on the basis of below average, average, and above average. Things to consider: amount of subcontracting, mobilization payment item, Government furnished property, equipment and facilities, and expediting assistance.

## 1.15.2.6 Assistance by Government

To be weighted from .12 to .03 on the basis of average to above average. Things to consider: use of Government owned property, equipment and facilities, and expediting assistance.

## 1.15.2.7 Subcontracting

Shall be weighted inversely proportional to the amount of subcontracting. Where 80 percent or more of the work is to be subcontracted, the weighting is to be .03 and such weighting proportionately increased to .12 where all the work is performed by the Contractor's own forces.

## 1.16 PARTNERING

In order to most effectively accomplish this contract, the Government is willing to form a cohesive partnership with the Contractor. This partnership would strive to draw on the strengths of each organization in an effort to achieve a quality project done correctly, within budget, and on time. This partnership would be bilateral in make-up and partnership will be totally voluntary. Any cost associated with effectuating this partnership will be agreed to by all parties and will be shared equally with no change in contract price.

## 1.17 SUBCONTRACTS AND WORK COORDINATION

Contract Clauses "SUBCONTRACTS", "PERMITS AND RESPONSIBILITIES", and "MATERIAL AND WORKMANSHIP" are supplemented as follows:

(a) Divisions or sections of specifications are not intended to control the Contractor in dividing the work among subcontractors, or to limit work performed by any trade.

(b) Contractor shall be responsible for coordination of the work of



the trades, subcontractors, and materials.

(c) The Government or its representative will not undertake to settle any difference between the Contractor and Contractor's subcontractors, or between subcontractors.

(d) The Government reserves the right to refuse to permit employment on the work or require dismissal from the work of any subcontractor who, by reason of previous unsatisfactory work on Corps of Engineers projects, or for any other reason is considered by the Contracting Officer to be incompetent or otherwise objectionable.

#### 1.18 TIDE LEVEL MEASUREMENT AND PREDICTION

##### 1.18.1 Responsibility for Tide Measurements

It shall be the responsibility of the Contractor to obtain tide level measurements and predictions as required to conduct his dredging operations for the duration of the work. The Contractor is advised that the Government will not provide a tide staff gauge in the vicinity of the dredging or placement areas.

##### 1.18.2 Tidal Reference Station

The Tidal Reference Station 8638863 on the fishing pier at the south island of the Chesapeake Bay Bridge Tunnel is used by the Government for obtaining accurate tide level measurements for Thimble Shoal Channel. The Contractor is informed there are Tide Correction Factors required to be factored into the readings and are provided for the Contractor's use as SECTION 01056 of these specifications. A tidal reference station has been installed and is operated at this station by National Ocean Service (NOS). The tide gauge is located in a steel room below the deck on the fishing pier and 295 feet west of the inshore end of the pier. The Contractor cannot have physical access to the tidal reference station; however, the Contractor can obtain tide information from the NOS website at:

[http://www.opsd.nos.noaa.gov/data\\_res.html](http://www.opsd.nos.noaa.gov/data_res.html)

##### 1.18.3 Tidal Reference Station Malfunctions

In the event that the NOS tidal reference station is not in service, the Contractor shall immediately notify the Chief, Navigation Support and Survey Section, telephone (757) 441-7125, or FAX (757) 441-7664.

#### 1.19 CONTINUITY OF WORK

Payment will not be made for work done in any area designated by the Contracting Officer until the full depth required under the contract is secured in the whole of such areas, nor will payment be made for excavation in any area not adjacent to and in prolongation of areas where full depth has been secured except by decision of the Contracting Officer. Should any such nonadjacent area be excavated to full depth during the operations carried on under the contract, payment for all work therein may be deferred until the required depth has been made in the area intervening. The

Contractor may be required to suspend dredging at any time when for any reason the gages or ranges cannot be seen or properly followed.

#### 1.20 CERF IMPLEMENTATION

The owner of the hopper dredge must have an active Basic Ordering Agreement (BOA) for the hopper dredge(s) on file with the Corps. The Contractor shall be obligated to make the hopper dredge(s) available to serve in the Corps of Engineers Reserve Fleet (CERF) at any time that the hopper dredge(s) is performing work under this contract. When the Contracting Officer is notified of the decision to activate the dredge(s) into the CERF, he shall take appropriate action to release the dredge(s). He may then extend or terminate the contract to implement whichever action is in the best interest of the Government. The CERF Contractor shall also be subject to the following conditions:

- a. The Director of Civil Works may require the Contractor to perform emergency dredging at another CONUS (48 contiguous states) site for a period of time equal to the remaining time under this contract at the date of notification plus up to ninety (90) days at the previously negotiated rate which appears on the schedule of prices in the BOA.
- b. The Chief of Engineers may require the Contractor to perform emergency dredging at an OCONUS (Outside CONUS which includes Alaska, Hawaii, Puerto Rico, the Virgin Islands, or U.S. Trust Territories) site for a period of time equal to the time remaining under this contract at the date of notification plus up to one hundred eighty (180) days at the negotiated rate which appears on the schedule of prices in the BOA.
- c. The CERF will be activated by the Chief of Engineers or the Director of Civil Works; then the Contracting Officer will notify the Contractor. From the time of notification, the selected hopper dredge(s) must depart for the emergency assignment within seventy-two hours for CONUS or ten days for OCONUS assignments.
- d. A confirming delivery order will be issued pursuant to the Basic Ordering Agreement (BOA) by the Ordering Contracting Officer. Such delivery order shall utilize the schedule of rates in the BOA for the specific hopper dredge(s).
- e. If during the time period specified in a, b, or c, above, a CERF vessel(s) is still required, the contract performance may be continued for additional time by mutual agreement.

#### 1.21 SEAGOING BARGE ACT

All dredges, barges, and vessels used for the transport of dredged material shall meet the applicable requirements of the Seagoing Barge Act (46 U.S.C. et seq). To document compliance with this act, the Contractor shall submit with his bid copies of U.S. Coast Guard Certificate of Inspection for each item of plant. Certification shall also be furnished to the Contracting Officer if additional plant is engaged during the course of the work.

PART 2 PRODUCTS (THIS PART NOT USED)

PART 3 EXECUTION (THIS PART NOT USED)

-- End of Section --

SECTION 01056

TIDAL ZONING

04/03

U. S. Army Corps of Engineers  
Norfolk District  
803 Front Street  
Norfolk, Virginia 23510

THIMBLE SHOAL/ATLANTIC OCEAN

2003/04/22

Gauges based on data obtained from gauge station at C.B.B.T.

<u>Station Range</u>	<u>Time</u>	<u>Ratio</u>	<u>Zone</u>
630+71.13 – 675+00	36	.94	SCB19
675+00 – 709+00	24	.92	SCB18
709+00 – 802+00	24	.96	SCB17
802+00 – 912+00	18	.96	SCB16
912+00 – 1093+00	6	1.00	SCB15
1093+00 – 1200+00	-6	1.02	SCB9
1200+00 – 1229+00	-12	1.06	SCB8
1229+00 – 1327+00	-12	1.12	SCB7
1327+00 – 1411+00	-12	1.19	SCB1
1411+00 – 1501+00	-18	1.27	MAC604
1501+00 – 1542+00	-30	1.29	MAC605
Dam Neck Placement Site	-30	1.35	MAC606

## SECTION 01057

### TARGET LOCATION DATA

The Target Location Data included in this SECTION is furnished for the Contractor's information; however, it shall be expressly understood that the Government will not be responsible for any interpretation or conclusion drawn from this information or data by the Contractor.

**RESULTS OF A SIDE SCAN SONAR  
SURVEYS IN THE  
AREA BETWEEN GREEN BUOY #17  
TO 2000' WEST OF CBBT ON THIMBLE SHOALS CH.**

**U.S. ARMY CORPS OF ENGINEERS, NORFOLK DISTRICT  
TECHNICAL SERVICES DIVISION, OPERATIONS BRANCH,  
NAVIGATION SUPPORT AND SURVEY SECTION**

**DATE : April & May, 2001**



## **INTRODUCTION**

The Corps of Engineers, Surveying Engineering Section was requested perform a side scan sonar survey. The survey was to investigate the area in the area west of CBBT to locate any possible obstruction that may be dredged in the future.

On April 3, 19, 23 & May 2, 2001, a side scan sonar survey was conducted to locate any obstructions that might caused problems with dredging in that area. The survey was performed by the 68-foot survey vessel ADAMS II operated by Captain Richard Cox. The supervisor of the field operation was Mr. Tony Smith. Mr. Pete Rhodes and Mr. Tim Woolard operated the side scan equipment. Mr. Al Perkins, and Mr. Tim Woolard interpreted the side scan sonar records and prepared this report.

## **LOCATION**

The following coordinates of the survey area are in U.S. Survey feet referred to the Virginia State Plane Coordinate System (South Zone) based on the North American Datum of 1983: (see attached sheets)

## **INSTRUMENTATION AND PROCEDURES**

A Klein, model 521 side scan sonar was used for this survey. Its towfish was deployed over the bow of the vessel and was towed approximately 30' to 6' below the water surface.

The side scan sonar transmitted sound waves from transducers located on both sides of its towfish. The sound waves are fan-shaped and point down and to each side of the vessel's track. The reflection of these waves off the bottom provide an acoustical "picture" or sonograph of the bottom on a recorder using a moving paper medium. An interpretation of this sonograph was then made to help determine the condition of the bottom.

Position updates were computed from a multirange navigation system. The ranges were provided by a Ashtech GPS positioning system, and range corrections provided by the U.S. Coast Guard navigation beacon with a range accuracy of one meter. These ranges were then sent to an onboard Pentium/500 MHz I.B.M. compatible computer using data collection and analysis software by Coastal Oceanographics.

Survey track lines were run at 150-foot intervals in a direction parallel to Thimble Shoals channel north toe to provide 100 percent overlap as defined by NOAA. The side scan sonar range and paper speed were set at 50 meters and 50 lines per centimeter, respectively.

## **OBSERVATION AND RESULTS** (see attached sheets)

## **RECOMMENDATIONS**

No further work necessary unless we are required to diver verify the above targets and provide least depth.

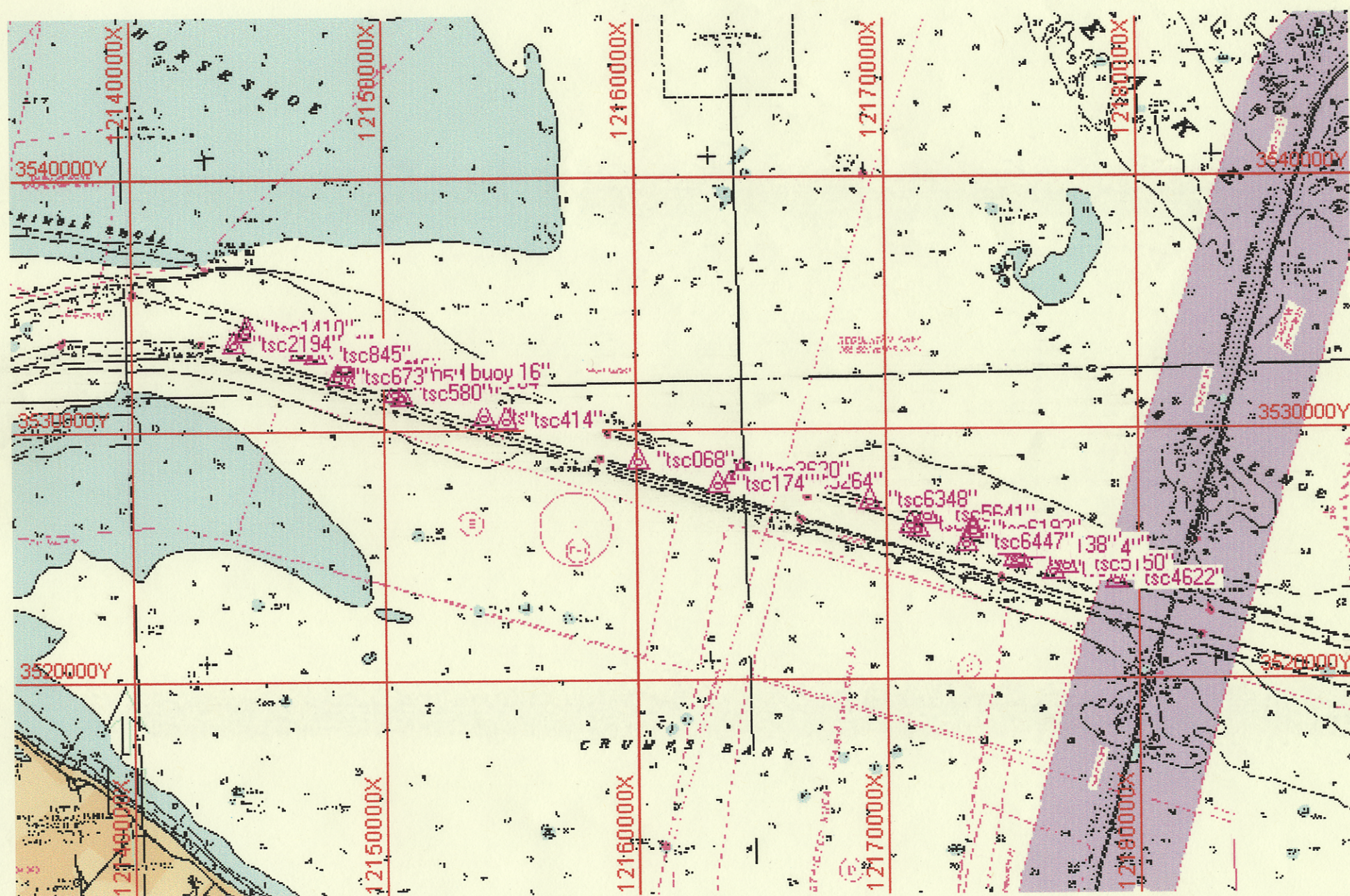


## Thimble Shoals Channel

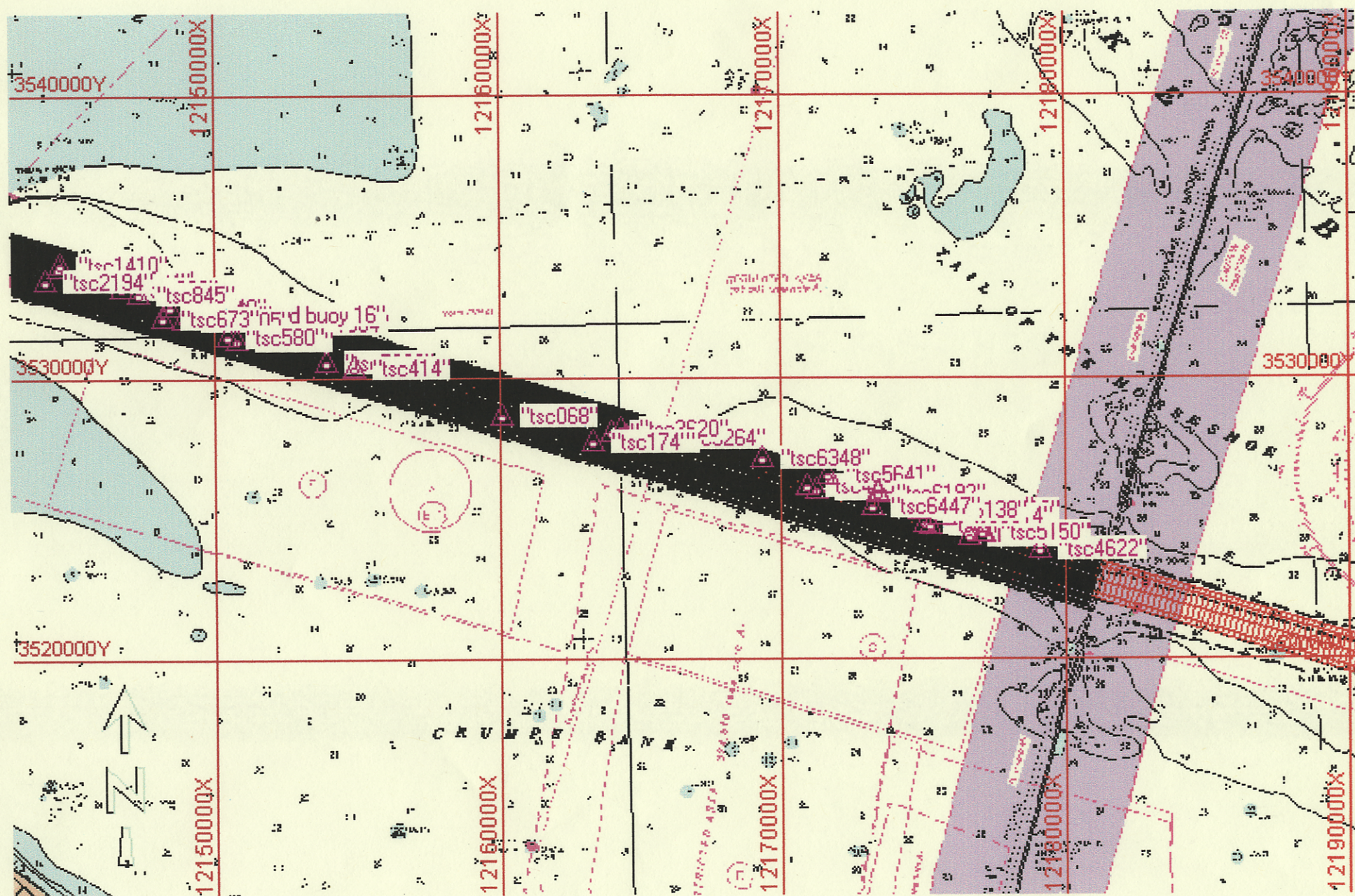
Side Scan of April 2001

Block #	Lat.	Long.	X	Y	Length Ft.	Width Ft.	Height Ft.
tsc179*62	3700.152	7613.25	12148398.68	3532512.84	5.58	3.61	1.64
tsc540*64	3700.151	7613.245	12148424.64	3532506.18	8.53	3.61	1.31
tsc658*6B	3700.317	7613.772	12145835.24	3533455.62	4.92	3.28	1.64
tsc739*6C	3700.389	7614.051	12144466.82	3533860.98	5.25	3.28	1.64
tsc784*60	3700.313	7613.796	12145717.66	3533426.08	7.55	4.59	1.31
tsc820*64	3700.261	7613.603	12146666.62	3533136.32	5.25	2.62	0.66
tsc845*67	3700.232	7613.48	12147264.99	3532971.68	4.27	3.94	0.98
tsc1084*56	3700.039	7612.45	12152308.18	3531921.62	5.58	4.27	0.98
tsc1136*5A	3700.071	7612.719	12150993.59	3532086.99	3.61	2.62	1.64
tsc1410*53	3700.413	7614.04	12144518.36	3534005.46	3.94	3.28	2.30
tsc1710*56	3700.083	7612.74	12150891.59	3532157.36	12.47	7.87	0.98
redb16*23	3700.097	7612.734	12150915.85	3532241.10	6.56	3.28	2.95
redb16*25	3700.093	7612.714	12151015.15	3532221.66	9.19	5.91	0.66
tsc2194*5A	3700.321	7614.141	12144038.91	3533435.53	11.48	6.56	1.31
tsc2405*59	3700.076	7613.155	12148871.04	3532064.15	7.22	3.28	1.31
tsc3202*6C	3659.352	7610.078	12163952.70	3528036.85	7.55	3.61	0.98
tsc3220*6E	3659.326	7609.967	12164492.78	3527895.41	6.23	3.28	1.64
tsc3264*66	3659.307	7609.742	12165594.99	3527804.93	4.92	3.94	0.66
tsc3620*69	3659.376	7610.014	12164258.01	3528193.72	5.25	1.97	1.31
tsc4264*65	3658.978	7608.595	12171223.46	3525950.31	8.20	2.95	2.62
tsc4415*6C	3658.763	7607.816	12175048.77	3524740.43	12.14	5.58	0.98
tsc4424*65	3658.751	7607.773	12175257.88	3524674.66	13.78	7.55	0.33
tsc4475*6F	3658.68	7607.499	12176604.78	3524273.30	5.25	5.25	1.31
tsc4622*6D	3658.601	7606.985	12179115.98	3523859.50	11.15	3.28	3.28
tsc4707*68	3658.707	7607.394	12177109.62	3524454.15	17.06	4.92	1.97
tsc4957*6B	3658.999	7608.654	12170932.71	3526068.70	3.61	3.94	1.97
tsc5150*61	3658.707	7607.396	12177101.40	3524452.12	6.89	5.91	7.22
redb10*1E	3658.839	7607.857	12174836.20	3525196.42	5.58	4.59	4.92
tsc5641*6C	3659.062	7608.512	12171614.17	3526469.95	7.87	7.22	0.98
tsc5550*62	3659.165	7608.977	12169337.17	3527037.15	6.23	3.94	1.97
tsc5720*63	3658.95	7608.149	12173397.22	3525835.93	6.89	3.28	0.98
tsc5771*6F	3658.855	7607.891	12174668.30	3525289.32	10.50	2.95	1.31
tsc5814*6F	3658.809	7607.668	12175762.57	3525036.37	3.61	2.62	1.97
tsc6143*6F	3658.863	7607.806	12175080.72	3525349.45	14.76	1.97	0.98
tsc6138*67	3658.84	7607.86	12174821.94	3525202.13	26.25	3.94	2.95
tsc6192*6B	3658.95	7608.144	12173422.67	3525831.10	10.50	1.31	0.98
tsc6348*60	3659.164	7608.972	12169361.10	3527034.10	18.37	3.61	0.66
tsc6447*63	3658.867	7608.196	12173181.69	3525322.47	3.61	1.64	0.98
tsc6801*2E	3659.298	7610.209	12163321.78	3527695.92	12.80	2.95	3.28
tsc7203*2D	3659.8	7612.123	12153932.01	3530513.43	5.91	4.27	0.66
tsc68*65	3659.466	7610.867	12160094.78	3528633.16	18.04	2.62	1.31
tsc174*79	3659.296	7610.211	12163312.79	3527685.38	6.89	13.45	3.61
tsc414*78	3659.766	7611.93	12154875.22	3530327.61	24.93	3.61	1.64
tsc570*44	3659.947	7612.772	12150751.61	3531324.21	33.79	2.30	0.98
tsc580*78	3659.971	7612.843	12150406.41	3531465.78	7.87	3.94	2.30
tsc673*71	3700.088	7613.305	12148141.89	3532118.77	28.87	1.97	0.98











TARGET_ID	EASTING	NORTHING	DEPTH_FT	DOVE	DESCRIPTION
TSC-01	12195132	3516453		43 yes	Angel iron and tube sock
TSC-02	12202661	3514699		46 yes	Wire cable
TSC-03	12193337	3519311		50 yes	Buoy anchor
TSC-04	12201846	3517692		47 yes	Surface debris scatter
TSC-05	12201523	3519860		47 yes	Surface debris scatter
TSC-06	12201255	3519046		45 yes	Corroded cable
TSC-07	12193741	3521855		38 yes	No contact with probe to 10-feet
TSC-08	12191454	3522181		33 yes	Wire cable
TSC-09	12200354	3520006		45 yes	Sunken buoy or dredge float
TSC-10	12197609	3515632		43 no	Small debris
TSC-11	12201234	3515226		43 no	Small debris
TSC-12	12202984	3514312		46 no	Small debris
TSC-13	12201084	3515467		48 no	Small debris
TSC-14	12200228	3515706		48 no	Small debris
TSC-15	12189154	3518969		41 no	Small debris
TSC-16	12189679	3518917		41 no	Small debris
TSC-17	12188960	3519395		41 no	Small debris
TSC-18	12203549	3515379		48 no	Small debris
TSC-19	12192058	3520074		51 no	Small debris
TSC-20	12203209	3517142		48 no	Small debris
TSC-21	12202442	3519264		43 no	Small debris
TSC-22	12198113	3519690		47 yes	No contact with probe to 10-feet
TSC-23	12194802	3520011		38 no	Small debris
TSC-24	12194222	3521333		38 no	Small debris
TSC-25	12194243	3521524		38 no	Small debris
TSC-26	12194475	3521714		38 no	Small debris
TSC-27	12193628	3521966		36 no	Small debris
TSC-28	12192566	3521150		36 no	Small debris
TSC-29	12189790	3521971		36 no	Small debris
TSC-30	12190506	3522155		33 no	Small debris

## SECTION 01111

## SAFETY AND HEALTH REQUIREMENTS

1/04

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS  
(ACGIH)Org

ACGIH Limit Values	(1999) Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices
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## ENGINEERING MANUALS

EM 385-1-1	(2003) Safety and Health Requirements Manual
ER 385-1-92	(2000) Safety and Occupational Document Requirements for Hazardous, Toxic, and Radioactive Waste (HTRW) Activities

## CODE OF FEDERAL REGULATIONS

29 CFR 1910	Occupational Safety and Health Standards, General Industry.
29 CFR 1926	Occupational Safety and Health Standards, Construction Industry.

## 1.2 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals having an "FIO" designation are for information only. The following shall be submitted in accordance with Section 01330 SUBMITTAL DESCRIPTIONS:

SD-01 Statements

Site Safety and Health Plan (SSHP); G

Prior to commencement of any work, including delivery of any plant, equipment or construction materials to the site, submit a plan for Site Safety and Health as specified herein.

The individual plans indicated below and their respective requirements specified herein, are Plans independent of the Site Safety and Health Plan; however, due to the respective requirements within each to be safety in nature, each Plan shall be included with the SSHP for approval.

Accident Prevention Plan (APP); G

Activity Hazard Analysis Plan(AHA); G

Authorized Plant Operators Plan; G

Hurricane Plan; G

Diving Operations Plan; G

SD-13 Certificates

Designated first-aid and CPR trained attendants

Safety indoctrination certificates

### 1.3 SAFETY REQUIREMENTS AND ACCIDENT PREVENTION

#### 1.3.1 Standards

The Contractor shall comply with Occupational Safety and Health Act (OSHA) Standards, the Corps of Engineers Manual EM 385-1-1, "Safety and Health Requirements Manual," NFPA 101, and all applicable state, local, and facility safety and occupational health requirements. In the event of a conflict in Standards, the most stringent as determined by the Contracting Officer shall prevail.

### 1.4 SITE SAFETY AND HEALTH PLAN (SSHP)

#### 1.4.1 Preparation and Implementation

A Site Safety and Health Plan shall be prepared covering on site work to be performed by the Contractor and all subcontractors, meeting the applicable requirements of EM 385-1-1, 29 CFR 1910.120, 29 CFR 1926.65 and ER 385-1-92. At a minimum, the SSHP shall address each element in Appendix C of ER 385-1-92, incorporate an Activity Hazard Analysis meeting the requirements of Section 01.A.10 and Figure 1-1, an Accident Prevention Plan (APP), as contained in Appendix A, EM 385-1-1, and Authorized Plant Operators Plan, Hurricane Plan, Diving Operations Plan as required by EM 385-1-1. The Contractor shall designate in writing a Site Safety and Health Manager who shall be responsible for the development, implementation and continual oversight of the SSHP. The SSHP shall establish, in detail, the protocols necessary for the anticipation, recognition, evaluation, and control of hazards associated with each task to be performed. The level of detail provided in the SSHP shall be tailored to the type of work, complexity of operations, and the anticipated hazards to be encountered. Details about some activities may not be available when the initial SSHP is initially

prepared and submitted; therefore, the SSHP shall address in as much detail as possible all anticipated tasks, their related hazards and the specific control measures to be instituted. In the event the Contractor is an accepted participant in the Dredging Contractors of America (DCA)/United States Army Corps of Engineers (USACE) Dredging Safety Management Program, an Accident Prevention Plan (APP) will not be required; however, the site specific requirements specified herein are required and shall be provided for review and acceptance as specified herein, and included as addenda data to the Safety Management System and other data as required by the CONTRACT CLAUSE "DREDGING AND DREDGE RELATED MARINE WORK". Additionally, the following listed requirements shall be incorporated into the SSHP:

- a. The SSHP shall be considered a living document and shall be updated as occupational safety and health conditions change during project execution and improved as occupational safety and health lessons are learned during the course of the project.
- b. SSHP elements in Appendix C of ER 385-1-92 are:
  1. Site Description and Contamination Characterization;
  2. Activity Hazard Analysis;
  3. Health and Safety Staff Organization, Qualifications and Responsibilities for the project;
  4. Health and Safety Training requirements for the project;
  5. Personal Protective Equipment;
  6. Medical Surveillance requirements for the project;
  7. Heat Stress/Cold Stress Prevention;
  8. Applicable elements of the Safety and Health Program edited to meet site specific conditions and site specific standard operating safety procedures, engineering controls and work practices used to reduce exposure to contaminants and prevent accidents;
  9. Emergency Equipment and First Aid Requirements;
  10. Emergency Response and Contingency Procedures.
  11. Logs, Reports and Recordkeeping.

#### 1.4.2 Acceptance and Modifications

Prior to submittal, the SSHP shall be signed and dated by the Contractor's designated Site Safety and Health Manager, Project Manager, and the Site Superintendent. The SSHP shall be submitted for review at least ten days prior to the Pre-work Safety Conference. Deficiencies in the SSHP will be discussed at the Pre-work Safety Conference, and the SSHP shall be revised to correct the deficiencies and resubmitted for acceptance. Work on site shall not begin until the plan has been accepted. A copy of the written SSHP shall be maintained on site. Once accepted by the Contracting Officer, the SSHP, including Activity Hazard Analyses and all applicable plans forming a part of the SSHP, programs and procedures required by (EM 385-1-1), will be enforced as if an addition to the contract. As work proceeds, the SSHP shall be adapted to new situations and new conditions. Changes and modifications to the accepted SSHP shall be made with the knowledge and concurrence of the Site Safety and Health Manager, the Site Superintendent, and the Contracting Officer. Should any unforeseen hazard become evident during the performance of the work, such hazards shall be brought to the attention of the Site Safety and Health Manager, the Site Superintendent, and the Contracting Officer, both verbally and in writing,

for satisfactory resolution as soon as possible. In the interim, all necessary action shall be taken to re-establish and maintain safe working conditions in order to safeguard on site personnel, visitors, the public, and the environment. Disregard for the provisions of this specification or the accepted APP shall be cause for stopping of work until the matter has been resolved and rectified to the satisfaction of the Contracting Officer.

#### 1.4.3 Activity Hazard Analysis (AHA)

Activity Hazard Analyses (AHA) for each major phase of work shall be submitted and updated during the project. Each Activity Hazard Analysis shall be prepared and submitted in accordance the requirements and format provided for in EM 385-1-1 (Figure 1-1), and shall be accepted as an Appendix to the project SSHP. At the end of this SECTION is a sample Activity Hazard Analysis Form showing a sampling of those activities, hazards, and actions to take to avoid hazards for similar work on this contract as required by the technical specifications. The Contractor is informed this sample form does not list all items that may be required of the Contractor for this contract; however, the Contractor shall utilize this form as a guide to provide, with his CQC Plan and Safety Plan for approval, a complete Activity Hazard Analysis of the scheduled work for the duration of the contract. The Project Superintendent and the Corps of Engineers Project Inspector shall sign the analysis. The AHA shall define the activities to be performed for each major phase of work, identify the sequence of work, the specific hazards anticipated, and the control measures to be implemented to eliminate or reduce each hazard to an acceptable level. Work shall not proceed on that phase until the AHA has been accepted and a preparatory meeting has been conducted by the Contractor to discuss its contents with everyone engaged in the activities, including the on site Government representatives. The Activity Hazard Analyses shall be continuously reviewed and, when appropriate, modified to address changing site conditions or operations.

#### 1.4.4 Hazard Communication Program

A hazard communication program shall be established and implemented in accordance with 29 CFR 1926, Section .59. Material safety data sheets (MSDS) shall be provided for all hazardous materials brought onto the worksite. One copy shall be provided to the Contracting Officer and one copy shall be included in the Contractor's Hazard Communication Program with the SSHP.

#### 1.4.5 Corps of Engineers Standards

Corps of Engineers Manual EM 385-1-1, referred to in "ACCIDENT PREVENTION" article of Contract Clauses, is hereby supplemented or revised as follows:

##### Equipment and Machinery Operator Authorization

The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and equipment. The list shall be maintained at the job site in a current status at all times.

### Means of Escape for Personnel Quartered, or Working on Floating Plant

Two means of escape shall be provided for assembly, sleeping, and messing areas on floating plant. For areas involving 10 or more persons, both means of egress shall be through standard size doors opening to different exit routes. Where nine or fewer persons are involved, one of the means of escape may be a window (minimum dimensions 24 inches by 36 inches) that leads to a different exit route.

### Emergency Alarms and Signals

(a) Emergency Alarms - Alarms shall be installed and maintained on all floating plant requiring a crew where it is possible for either a passenger or crewman to be out of sight or hearing from any other person. The alarm system shall be operated from the primary electrical system with standby batteries on trickle charge that will automatically furnish the required energy during an electrical-system failure. A sufficient number of signaling devices shall be placed on each deck so that the sound can be heard distinctly at any point above the usual background noise. All signaling devices shall be so interconnected that actuation can occur from at least one strategic point on each deck.

(b) Fire Alarm Signals - The general fire alarm signal shall be in accordance with Coast Guard Rules and Regulations for Cargo and Miscellaneous Vessels.

(c) Abandon Ship Signals - The signal for abandon ship shall be in accordance with the reference cited in (b) above.

(d) Man-Overboard Signal - Hail and pass the word to the bridge. All personnel and vessels capable of rendering assistance shall respond.

### Hurricane Plan

A detailed plan for protection and evacuation of personnel and plant in the event of an impending hurricane or storm shall be submitted for approval as a part of the Contractor's Accident Prevention Program. The plan shall include as a minimum:

(a) The time each phase of the plan will be put in effect. The time shall be the number of hours remaining for the storm to reach the worksite if it continues at the predicted speed and direction.

(b) The safe harbor for personnel and plant specifically identified.

(c) The name of the boat that will be used to move the plant, its type, capacity, speed, and availability.

(d) The estimated time necessary to move the plant to the safe harbor after movement is started.



### Diving Operations Plan

All diving operations shall be planned and performed in accordance with the Corps of Engineers Safety Manual EM 385-1-1 and must be limited to those tasks that cannot be accomplished in any other manner. The Contractor shall submit for approval all information which may affect the work to be accomplished, including divers names, medical examination reports, qualifications of all divers and top-side tenders to be employed in the diving operations, plant and equipment to be employed on the work, and a written dive plan with sketches and narrative descriptions for each phase of the planned dive. All required submittals shall be provided in accordance with the Corps of Engineers Safety Manual EM 385-1-1. Required submittals shall be delivered to the Government as directed at the Pre-Construction Conference and, where the Manual indicates approval of specific Plan operations is required by Diving and Safety personnel in the District, a minimum of 15 calendar days shall be allowed for required approvals by these personnel. Under no circumstances shall any diving operations be performed without required approvals.

#### 1.4.5 Dredge and Attendant Plant, Equipment and Field Safety

All operable equipment and machines, shall be checked for:

- (a) Manufacturer's safety instructions, permanent-mounted and easily read.
- (b) Guard Rails and lifelines at overboard access areas, as applicable.
- (c) Cover exposed moving parts with safety-guards to prevent someone from accidentally stepping or falling on them.

##### 1.4.5.1 Dozers, Front-End Loaders, Backhoes, and Other Wheeled-Tract Machines

Dozers, front-end loaders, backhoes, and other wheeled-tract machines shall be equipped with rollover protection and seat belts. All rotating or reciprocating parts, and any parts subject to high operational temperatures that are of such nature or so located as to be or become a hazard to the operating or attending personnel, shall be substantially guarded and insulated to the extent necessary to eliminate the hazard. Walking or working surfaces and platforms shall be of an anti-skid type.

##### 1.4.5.2 Checks

All front end loader-backhoe machines and other machines, such as tractors that utilize a backhoe attachment, shall be checked for:

- (a) Exposed backhoe boom swing foot pedals.
- (b) Backhoe boom swing lever that can be reached by a man standing on the ground or on the outrigger support bracket.

#### 1.4.5.3 Controls

Where these conditions exist, guards shall be fabricated to:

- (a) Cover over exposed foot pedals to prevent someone from accidentally stepping on them.
- (b) Enclose the swing lever so as to preclude operation from the ground or from the outrigger support bracket.

#### 1.4.5.4 Correction and Fabrication of Non-compliance Safety Items

Where these conditions exist, guards shall be fabricated to:

- a. Cover over exposed foot pedals to prevent someone from accidentally stepping on them.
- b. Enclose the swing lever so as to preclude operation from the ground or from the outrigger support bracket.

#### 1.4.5.5 Crawler-, Truck-, and Wheel-Mounted Cranes

Implementation of paragraph 16.D.05 of EM 385-1-1 shall include the following:

a. When a crane is performing duty cycle work (such as clamshell, dragline, grapple, or pile driving) it does not require anti-two block equipment. If the crane is required to make a non-duty cycle lift (for example, to lift a piece of equipment, a tool box, or supplies), it will be exempt from the anti-two block equipment requirements if the following procedures are implemented:

- (1) an international orange warning device (warning flag, warning tape, or warning ball) is properly secured to the hoist line at a distance of 8 to 10 feet above the hoist rigging;
- (2) the signal person (or an individual designated as the signal person) acts as a spotter to alert the crane operator with a "STOP" signal when the warning device approaches the boom tip and the crane operator ceases hoisting functions when alerted of this; and
- (3) while the non-duty cycle lift is underway, the signal person shall not stand under the load, shall have no duties other than signal person, and shall comply with the signaling requirements of EM 385-1-1;

b. Anti-two block devices are always required when hoisting personnel by crane or derrick.

#### 1.4.6 Heat Stress Management

The Contractor shall establish a heat stress management program and implement it in accordance with ACGIH Limit Values when the ambient temperature exceeds 70 Degrees F. The heat stress management program shall

consist of the following procedures and practices.

#### Physiological Monitoring

The Contractor shall train or otherwise assure workers heart rates and body core temperatures are monitored and assure that threshold levels in Table 4 of ACGIH Limit Values are not exceeded.

#### ACGIH General Controls for Heat Stress

The Contractor shall implement general heat stress control procedures in Table 5 of ACGIH Limit Values as part of his heat stress management program.

#### ACGIH Job Specific Controls for Heat Stress

The Contractor shall implement job specific heat stress controls in Table 5 of ACGIH Limit Values when site specific conditions warrant.

#### 1.4.7 Designated First-aid and CPR Trained Attendants

The Contractor shall designate at least 2 persons who are currently trained in first aid and CPR by the American Red Cross or other approved agency for each work shift, and these individuals shall be on site at all times during site operations. They shall be trained in universal precautions and the use of PPE as described in the Blood borne Pathogens Standard of 29 CFR 1910, Section .1030 and shall be included in the Contractor's Blood borne Pathogen Program. These persons may perform other duties but shall be immediately available to render first aid when needed. A copy of each designated person's current valid First Aid and CPR certificate shall be provided.

#### 1.4.8 Attendance at Safety Meetings

In order to allow for maximum attendance at weekly tool box safety meetings and monthly supervisor safety meetings by Corps of Engineers personnel, the Contractor shall advise the CO's Office, a minimum of 48 hours before the start of each meeting, of the date, time and location of Safety Meetings.

#### 1.4.9 Minutes of Safety Meetings

Minutes shall be prepared by the Contractor and forwarded to the Contracting Officer by close of business of the next working day.

#### 1.4.10 Protective Footwear

Protective footwear shall be worn by all personnel working on site. Such protective footwear shall be approved by the American National Standards Institute (ANSI), and shall be constructed and tested in accordance with the requirements of ANSI Standard Z41. Footwear providing protection against impact and compression hazards shall at least be rated as I75 and C75.

## 1.4.11 Head Protection

All construction areas are to be designated as hard hat areas, and shall be identified and appropriately posted as such. All protective headgear (hard hats) shall meet the requirements of ANSI Standard Z89.1.

## 1.4.12 Ground Fault Circuit Interrupters (GFCI)

GFCI's are required for work on this contract in accordance with EM 385-1-1.  
GFCI's are also required when using electric power extension cords.

PART 2 PRODUCTS (THIS PART NOT USED)

PART 3 EXECUTION (THIS PART NOT USED)  
-- End of Section --

(Example Only)

(Note this form is an example to be used as a guide only by the Contractor in preparing his own Activity Hazard Analysis. The Contractor is required to submit his own Activity Hazard Analysis of all the scheduled work as specified for approval. Contractor responsible for all costs to meet this requirement.

## SECTION 01200

## PROJECT MEETINGS

1/04

## PART 1 GENERAL

## 1.1 SUBMITTALS (NOT APPLICABLE)

## 1.2 PRECONSTRUCTION CONFERENCE

## 1.2.1 Scheduling

After award of the construction contract and prior to the start of any construction work, the Contracting Officer (CO) will schedule and conduct a preconstruction conference. The Contractor's Project Manager, Superintendent and Quality Control System Manager shall attend this meeting. The Contractor is encouraged to have an officer of his company (Project Manager could be this person) and representation from each of his sub-contractors and major construction work divisions at the conference. This conference will be held at a location and time as specified by the CO.

## 1.2.2 Purpose

The purpose of this preconstruction conference is to enable the CO to outline the procedures that will be followed by the Government in its administration of this construction contract and to discuss the performance that will be expected from the Contractor. This conference will allow the Contractor an opportunity to ask questions about the Government's supervision and inspection of contract work, about security requirements, regulations, and other similar matters. The CO may invite Nature Conservancy and other Government personnel involved in the work to attend this conference.

## 1.2.3 Discussion Items

The following is a list of items for discussion during the preconstruction conference. However, the Contracting Officer may include additional items for discussion as conditions and the work require.

- a. Authority of the Contracting Officer/Contracting Officer's Representative.
- b. Contractor's Progress Schedule.
- c. Correspondence Procedures.
- d. Contractor Labor Standards Provisions.
- e. Contract Modifications and Administrative Procedures.
- f. Contractor's Administrative, Laydown and Storage Areas.

- g. Procedures for Processing Submittals.
- h. Payment Estimate Data and Procedures.
- i. Contractor Utilities.
- j. Security Requirements and Other Regulations, if applicable.
- k. Government Furnished Equipment, if applicable.
- l. Disposition of Salvage Property.
- m. Contractor Insurance Requirements.
- n. Value Engineering Program.
- o. Contractor Performance Evaluation.
- p. As-Built Drawings.
- q. Warranty of Construction and Single Point of Contact.
- r. Turnover of Completed Facilities.
- s. Contractor Plan of Operations - The Contractor shall indicate his method(s) of layout and accomplishment of the scheduled work, and his verification/certification procedures for accuracy of the respective areas of work to be accomplished.
- t. Contractor Required Notification Procedures
- u. Contractor's Submittal Register
- v. Contractor's Survey and Information Reporting Procedures
- w. Contractor's Placement Plans and Activity Hazard Analysis Related to Placement Procedures

### 1.3 OTHER MEETINGS

Other meetings may be held after the Preconstruction Conference, and such meetings may include the following:

- a. Contractor's Site Safety and Health Plan
- b. Quality Control Plan
- c. Environmental Protection Plan

### 1.4 MINUTES OF MEETINGS

The Government will prepare minutes of the meeting and will provide the

Contractor with a signed original for review and concurrence. The minutes shall include all items discussed at the meeting and the Government will make all corrections provided by the Contractor and resubmit the corrected minutes to the Contractor within seven days.

PART 2 PRODUCTS (THIS PART NOT USED)

PART 3 EXECUTION (THIS PART NOT USED)

-- End of Section --



## SECTION 01270

## MEASUREMENT AND PAYMENT

1/04

## PART 1 GENERAL

## 1.1 SUBMITTALS

Not Used.

## 1.2 BASE BID AND OPTIONAL BID LUMP SUM PAYMENT ITEMS

Payment items for the work of this contract for which contract lump sum payments will be made are listed in the PROPOSAL SCHEDULE and described below. All costs for items of work, which are not specifically mentioned to be included in a particular lump sum or unit price payment item, shall be included in the listed lump sum item most closely associated with the work involved. The lump sum price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for which separate payment is not otherwise provided.

## 1.3 BASE BID AND OPTIONAL BID UNIT PRICE PAYMENT ITEMS

Payment items for the work of this contract on which the contract unit price payments will be made are listed in the PROPOSAL SCHEDULE and described below. The unit price and payment made for each item listed shall constitute full compensation for furnishing all plant, labor, materials, and equipment, and performing any associated Contractor quality control, environmental protection, meeting safety requirements, tests and reports, and for performing all work required for each of the unit price items.

## 1.4 SCHEDULED PAYMENT ITEMS

## 1.4.1 Base Bid Payment Item No. 0001 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of all of the Contractor's dredging plant and equipment as defined below will be paid for at the contract lump sum price for this item. Sixty percent of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent will be paid to the Contractor upon completion of demobilization. In the event the Contracting Officer considers that the amount in this item, sixty percent which represents mobilization and forty percent which represents demobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the Contracting Officer will result in

payment of actual mobilization costs, as determined by the Contracting Officer, at the completion of mobilization, and actual demobilization costs, as determined by the Contracting Officer, at the completion of demobilization. The determination of the Contracting Officer is not subject to appeal.

#### 1.4.1.1 Mobilization

Mobilization shall include all costs for operations accomplished prior to commencement of actual dredging operations. This shall include transfer of dredge and attendant plant, booster pumps, bulldozers and other like equipment and machinery for site work, all initial installation of pipe, and any other associated work that is necessary in advance of the actual dredging operations.

#### 1.4.1.2 Demobilization

Demobilization shall include general preparation for transfer of plant to its home base, removal of pipelines, cleanup of site of work including the placement area, and transfer of plant to its home base.

#### 1.4.2 Base Bid Payment Item No. 0002 Dredging

Payment to be made for all costs associated with dredging shall include the cost of removal and placement of material as indicated and specified, exclusive of the mobilization and demobilization as defined above, will be paid for at the contract unit price for this item. The drawings are believed to accurately represent conditions at the time of the surveys indicated. New soundings will be taken immediately before dredging. The total volume of all material removed and to be paid for under this contract will be measured by the cubic yards in place, and computing the volume between the bottom surface shown by soundings of the last survey before dredging (before dredging survey) and the bottom surface shown by the soundings of a survey made as soon as practicable after the entire work specified has been completed (after dredging survey). The volume for measurement and payment shall include the material within the limits of overdepth and side slopes described in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" of SECTION 02881, less any deductions that may be required for misplaced material described in subparagraph "Misplaced Material" below. The Contractor's unit price for dredging, based on the above method of computation of the quantity for payment, shall include his evaluation of shoaling, other natural changes in the waterway, or changes caused by the Contractor's operations that might occur during the period between the surveys before dredging and the surveys for acceptance of the work. Computations for payment purposes will be made by the Government using, as defined in EM 1110-2-1003, the Average End Area (AEA) method, Triangulated Irregular Network (TIN) method, or a combination of these methods at the discretion of the Government, and utilize proprietary electronic data processing software and machines for the calculations. Determination of quantities removed and the deductions made to determine quantities in place to be paid for in the areas specified, after having once been made, will not be reopened except on evidence of collusion, fraud, or obvious error.

#### 1.4.3 Optional Bid Payment Item No. 0003 Mobilization and Demobilization

All costs connected with the mobilization and demobilization of all of the Contractor's plant and equipment to provide for Sea Turtle Trawling and Turtle Relocation as defined below will be paid for at the contract lump sum price for this item. Sixty percent of the lump sum price will be paid to the Contractor upon completion of his mobilization at the work site. The remaining forty percent will be paid to the Contractor upon completion of demobilization. In the event the Contracting Officer considers that the amount in this item, sixty percent which represents mobilization and forty percent which represents demobilization, does not bear a reasonable relation to the cost of the work in this contract, the Contracting Officer may require the Contractor to produce cost data to justify this portion of the bid. Failure to justify such price to the satisfaction of the Contracting Officer will result in payment of actual mobilization costs, as determined by the Contracting Officer, at the completion of mobilization, and actual demobilization costs, as determined by the Contracting Officer, at the completion of demobilization. The determination of the Contracting Officer is not subject to appeal.

##### 1.4.3.1 Mobilization

Mobilization shall include all costs for operations accomplished prior to commencement of actual sea turtle trawling operations. This shall include transfer of vessel, all sea turtle trawling attendant plant, ancillary equipment and machinery for performing the work, and any other associated work that is necessary in advance of the actual sea turtle trawling operations.

##### 1.4.3.2 Demobilization

Demobilization shall include general preparation for transfer of plant to its home base, removal of ancillary equipment and machinery, and transfer of plant and all ancillary equipment to its home base.

#### 1.4.4 Optional Bid Payment Item Nos. 0004 and 0005 Sea Turtle Trawling and Relocation of Sea Turtles

Payment to be made for sea turtle trawling, as specified in Appendix E of the National Marine Fisheries Service Biological Opinion issued as a part of this contract and in the other applicable portions of the contract documents governing this work, will be paid for at the contract unit price for these items and shall include all costs associated with sea turtle trawling and turtle relocation, complete, including all direct and indirect labor and other associated work as indicated and specified.

#### 1.4.5 Optional Bid Payment Item No. 0006

The contract price per day for Contracting Officer directed standby time shall include the contractor's costs for holding his plant, equipment and crew on site until further direction is given by the Contracting Officer. Time will be measured and paid for by the day (24 hours) and calculated to the nearest (1/24) day for payment. If the Contracting Officer directs that plant be placed in a standby status, the Contractor shall cease dredging

operations and preparation for dredging operations, and shall secure the total dredge plant in a mooring location acceptable to the Contracting Officer.

#### 1.5 MISPLACED MATERIAL

Any material that is deposited elsewhere than in places designated or approved by the Contracting Officer will not be paid for, and the Contractor may be required to remove such misplaced material and deposit it where directed by the Contracting Officer at the Contractor's expense.

#### 1.6 EXCESSIVE DREDGING

Material taken from outside the specific areas to be dredged or beyond the limits as extended in paragraph "Required Dredging Prism, Overdepth, and Side Slopes" will be considered as excessive overdepth dredging, or excessive side slope dredging, for which payment will not be made. Nothing in these specifications shall be construed to prevent payment for the removal of shoals performed in accordance with the applicable provisions of Paragraphs SHOALING and FINAL EXAMINATION AND ACCEPTANCE of Section 01005.

#### 1.7 MONTHLY PARTIAL PAYMENTS

Monthly partial payments will be based on estimated quantities determined by the Contracting Officer.

PART 2 PRODUCTS (Not Applicable)

PART 3 EXECUTION (Not Applicable)

-- End of Section --

## SECTION 01320

## PROJECT SCHEDULE

1/04

## PART 1 GENERAL

## 1.1 QUALIFICATIONS

The Contractor CQC representative shall be responsible for the preparation and certification as complete all required project Progress Schedule submittals and reports.

## PART 2 PRODUCTS (Not Applicable)

## PART 3 EXECUTION

## 3.1 GENERAL REQUIREMENTS

Pursuant to the Contract Clause, SCHEDULE FOR CONSTRUCTION CONTRACTS, a project Progress Schedule as described below and specified in the CONTRACT CLAUSES shall be prepared. The scheduling of construction shall be the responsibility of the Contractor. Contractor management personnel shall actively participate in its development. Subcontractors and suppliers working on the project shall also contribute in developing and maintaining an accurate Project Schedule. The approved Project Schedule shall be used to measure the progress of the work, to aid in evaluating time extensions, and to provide the basis of all progress payments as applicable.

## 3.2 PROGRESS SCHEDULE

The Contractor shall submit his Progress Schedule to the Contracting Officer for approval at the Pre-Construction Conference specified in SECTION 01200. The Contractor shall indicate on the progress chart the bid items contained in the contract, showing the amount of the item and its relative weighted percentage of the total contract. The Contractor may separate features of work under each item to show salient work elements such as procurement of materials, mobilization and demobilization of plant and equipment, and supplemental work elements such as work features required prior to dredging. These salient features shall total to the cost and weighted percentages shown for each separate bid item. When quantity variations impact the weighted percentage of a separate item by five percent or more, the Contractor shall revise the project Progress Schedule to accurately reflect the impact of such variations. The Progress Schedule shall be prepared and certified as complete by the Contractor's Quality Control Representative in the form of a chart graphically indicating the sequence proposed to accomplish each work feature or operation. The chart shall be prepared to show the starting and completion dates of all work features on a linear horizontal time scale beginning with date of Notice to Proceed, arrival date of Contractor's plant to the job site, all activities scheduled prior to dredging, dredging start and completion dates, calendar days to completion of all work, and contract completion date. Each activity

in the construction shall be represented by an arrow and shall have a beginning and ending node (event). The entire project shall have only one beginning node and one ending node. The arrangement of arrows shall be such that they flow from the left to right. Each arrow representing an activity shall be annotated to show the activity description, duration and cost. The Contractor shall indicate on the chart the important work activities that are critical to the timely overall completion of the project. Key dates for important features or portions of work features are milestone dates and shall be so indicated on the chart. Based on this chart, the Contractor shall prepare an earnings-time curve (S Curve) showing the rate of progress in terms of money and percent completion.

### 3.3 PROGRESS SCHEDULE FORMAT

The computer software system or manual method(s) used by the Contractor to produce his Progress Schedule and any required associated information shall require approval by the Contracting Officer prior to submittal by the Contractor. Any computer software utilized by the Contractor to produce the Project Schedule shall be capable of providing all requirements of this specification. Failure of the Contractor to meet the requirements of this specification shall result in the disapproval of the schedule.

### 3.4 UPDATED SCHEDULES

Update of the Progress Schedule shall be at weekly intervals or when the construction schedule has been revised. Reflect any changes occurring since the last update and certify by signature of the Contractor's Quality Control Officer and submit to the Contracting Officer as specified.

-- End of Section --

## SECTION 01330

SUBMITTAL PROCEDURES  
10/03

## PART 1 GENERAL

## 1.1 SUBMITTAL IDENTIFICATION AND CLASSIFICATION

The Contractor shall insure all submittals as required in the Contract are submitted to the government as identified and in accordance with the procedures specified in this Section. Submittals may be required for work features and procedures in the specifications that are not listed or classified as indicated below. The Contractor shall still be required to list these submittals in his Submittal Register as required by the respective specification, and designate the submittal and action required in the register.

## 1.1.1 Submittal Identification

Submittals required are identified by SD numbers and titles with typical items to be submitted under this classification as follows:

## SD-01 Preconstruction Submittals

- Certificates of insurance
- List of proposed subcontractors
- List of proposed products
- Construction Progress Schedule
- Submittal schedule
- Schedule of values
- Health and safety plan
- Activity Hazard Analysis
- Quality control plan
- Environmental protection plan

## SD-02 Shop Drawings

As used in this section, drawings, schedules, diagrams, and other data prepared specifically for this contract, by contractor or through contractor by way of subcontractor, manufacturer, supplier, distributor, or other lower tier contractor, to illustrate portion of work.

## SD-03 Product Data

Preprinted material such as illustrations, standard schedules, performance charts, instructions, brochures, diagrams, manufacturer's descriptive literature, catalog data, and other data to illustrate portion of work, but not prepared exclusively for this contract.

## SD-04 Samples

Physical examples of products, materials, equipment, assemblies, or workmanship that are physically identical to portion of work, illustrating portion of work or establishing standards for evaluating appearance of finished work or both.

## SD-05 Design Data

Placement plan with proposed equipment usage and datum used and benchmark locations.

## SD-06 Test Reports

Report signed by authorized official of testing laboratory that a material, product or system identical to the material, product or system to be provided has been tested in accord with specified requirements.

Results of environmental testing.

Report which includes findings of a test required to be performed by the contractor on an actual portion of the work or prototype prepared for the project before shipment to job site.

Report which includes finding of a test made at the job site or on sample taken from the job site, on portion of work during or after installation.

Investigation reports.

Daily checklists.

Final acceptance test and operational test procedure.

## SD-07 Certificates

Statements signed by responsible officials of manufacturer of product, system or material attesting that product, system or material meets specification requirements. Must be dated after award of project contract and clearly name the project.

Document required of Contractor, or of a supplier, installer or subcontractor through Contractor, the purpose of which is to further quality of orderly progression of a portion of the work by documenting procedures, acceptability of methods or personnel qualifications.

## SD-08 Manufacturer's Instructions

Preprinted material describing installation of a product, system or material, including special notices and Material Safety Data sheets concerning impedances, hazards and safety precautions.



## SD-09 Manufacturer's Field Reports

Documentation of the testing and verification actions taken by manufacturer's representative to confirm compliance with manufacturer's standards or instructions.

Factory test reports.

## SD-10 Closeout Submittals

Placement area profiles and surveys.

## 1.1.2 Submittal Classification

Submittals are classified as follows:

## a. Government Approved

Government approval is required for extensions of design, critical materials, deviations, equipment whose compatibility with the entire system must be checked, and other items as designated by the Contracting Officer. Within the terms of the Contract Clause entitled "Specifications and Drawings for Construction," they are considered to be "shop drawings."

## b. Information Only

All submittals not requiring Government approval will be for information only. They are not considered to be "shop drawings" within the terms of the Contract Clause referred to above.

## 1.2 APPROVAL OF SUBMITTALS

The approval of submittals by the Contracting Officer's Representative (COR), shall not be construed as a complete check, but will indicate only that the general method of construction, work scheduling, and other information are satisfactory. Approval will not relieve the Contractor of the responsibility for any error which may exist, as the Contractor under the Contractor Quality Control (CQC) requirements of this contract is responsible for the dimensions, layout, and satisfactory construction of all work as indicated and specified. After submittals have been approved by the COR, resubmittal for the purpose of changing the approved Work Plan, Progress Schedule, designated Acceptance Sections, or for any other reason, will not be given consideration unless accompanied by an explanation as to why a change is necessary.

## 1.3 DISAPPROVED SUBMITTALS

The Contractor shall make all corrections required by the COR and promptly furnish a corrected submittal with the Daily CQC Report as specified for the initial submittal. If the Contractor considers any correction indicated on the submittal(s) to constitute a change to the contract, notice as required under the Contract Clause entitled "Changes" shall be

given at the same time to the COR.

#### 1.4 WITHHOLDING OF PAYMENT

Payment for any part of the scheduled work accomplished by the Contractor, including transportation of the Contractor's plant to or from the site of the work, will not be made if required approvals for all parts of the scheduled work have not been obtained.

#### PART 2 PRODUCT (Not Used)

#### PART 3 EXECUTION

##### 3.1 GENERAL

The Contractor shall submit all items required and specified in these specifications, and as may be required by other portions of the scheduled work. Proposed deviations from the contract requirements shall be clearly identified. The required submittals shall be listed in the Contractor's Work Plan and on the Contractor's Submittal Register Form 4288-R. All requirements of submittals shall be coordinated with SECTION 01451. Any questions regarding submittals required of the Contractor will be discussed at the Preconstruction Conference specified in SECTION 01200. At this Conference, and during the progress of the work, the COR may request submittals in addition to those listed when deemed necessary to adequately describe the work covered in the respective sections. Dimensions and units of weights and measures used on all submittals shall be the same as indicated and specified. Each submittal shall be complete and in sufficient detail to allow ready determination of compliance with contract requirements. Prior to submittal, all items shall be checked and approved as complete by the CQC representative as specified in SECTION 01451.

##### 3.2 SCHEDULING

Submittals covering component items forming a system or items that are interrelated, such as access/egress to the work area, and delivery/storage of materials prior to construction of features shall be scheduled to be coordinated with the requirements specified and submitted concurrently.

###### 3.2.1 Submittal and Report Identification

All submittals and reports shall be complete, properly marked, adequately detailed, and identified with location of occurrence in the respective specification section with paragraph number, drawing number and location, and respective Plan or Report requirement, as applicable. The Contractor's CQC representative shall sign and date each submittal and report as complete.

##### 3.3 SUBMITTAL REGISTER (ENG FORM 4288)

At the end of this SECTION is a sample Submittal Register (ENG Form 4288-R) showing those plans, lists, and items of equipment and materials for which submittals are required by the specifications. The Contractor is informed this sample form may not list all submittals that may be required of the

Contractor; however, the Contractor shall utilize this form as a guide to provide, with his CQC Plan for approval, a complete Submittal Register listing all submittals required for the duration of the contract. The Submittal Register shall consist of individual pages representing the respective Specification Sections as shown in the attached sample. Columns "d" through "q" of the sample form indicate the method the Contractor is to use in identification of his submittals. In the respective Specification Sections and when so directed by specified requirements in other parts of the contract for a particular type of submittal, the Classification status to be inserted in Columns "p" and "q" is indicated. The Contractor's Quality Control Representative shall certify in writing as part of the CGC Plan the appropriate designation for all submittals has been made. The remainder of columns and how they are to be utilized during administration of the contract will be addressed at the Pre-Construction Conference as noted in SECTION 01200.

#### 3.4 TRANSMITTAL FORM (ENG FORM 4025)

At the end of this SECTION is a sample Transmittal Form (ENG Form 4025) which shall be used for transmittal coordination of all submittals. This form shall be completed by the Contractor identifying each item to be submitted. Special care shall be exercised to ensure proper listing of the date of the submittal transmittal, specification section and paragraph number pertinent to the data submitted for each item, and numerical sequence coordination with the Submittal Register Form 4288-R, Column "b".

-- End of Section --

**Instructions For Completing ENG FORM 4025-R, Mar 95**

A. Enter date the submittal is issued.

B. Enter the Transmittal Number under which the submittal was made.

The Transmittal Number shall have the following format:

A-B.C

Where: A is the specification section

B is a consecutive number where 1 would be the first transmittal under the given specification section, 2 would be the second transmittal, etc.

C is a consecutive number identifying resubmittals. Number 1 would be the first resubmittal, 2 the second, etc.

Examples of Transmittal Numbers under Specification Section 01451:

01451-1  
01451-2  
01451-1.1 (first resubmittal of 01451-1)  
01451-3

C. Enter name and address of Corps of Engineers reviewing office.

D. Enter name and address of Contractor.

E. Enter contract number.

F. If this is the first submittal of information for this item number, check the box for "New Submittal". If not, check the box for "Resubmittal".

G. If the "Resubmittal" box is checked, enter the previous Transmittal No.

H. Enter the specification section that applies to this Transmittal Form. A separate Transmittal Form shall be used for submittals under separate sections of the specifications.

I. Enter name and location of project.

J. Indicate whether the submittal is "For Information Only (FIO)" or for "Government Approval (Gov't Approval)".

K. Enter the Item No. as identified on the Submittal Register.

L. Enter the Description of the item submitted as identified on the Submittal Register.

---

M. Enter information as necessary. When a sample of material or Manufacturer's Certificate of Compliance is transmitted, indicate "Sample" or "Certification."

N. Enter the number of copies of submittal data attached.

O. Enter the specification paragraph number as identified on the Submittal Register using the following format:

Spec. Section - Paragraph number

P. Enter information as necessary.

Q. Enter Contractor Action Code. See reverse side of ENG Form 4025 for applicable codes.

R. A check shall be placed in the "Variation" column when a submittal is not in accordance with the plans and specifications. Attach a written statement describing the variation.

S. Review code assigned by the Government reviewer.

T. Remarks from the Contractor or Government review comments. Government review comments may also be placed on a separate sheet of paper.

U. Signature of Contractor reviewer.

V. Number of enclosures being returned to the Contractor by the Government reviewer

W. Signature and title of Government approving authority.

X. Date of review by the Government.

Other: In submitting manufacturer's literature or similar information, the Contractor shall clearly identify the item proposed for use.

TRANSMITTAL OF SHOP DRAWINGS, EQUIPMENT DATA, MATERIAL SAMPLES, OR MANUFACTURER'S CERTIFICATES OF COMPLIANCE <small>(Read instructions on the reverse side prior to initiating this form)</small>									
TRANSMITTAL NO.		DATE		1 Jan 97					
SECTION I - REQUEST FOR APPROVAL OF THE FOLLOWING ITEMS (This section will be initialed by the contractor)				CHECK ONE: <input type="checkbox"/> THIS IS A NEW TRANSMITTAL <input type="checkbox"/> THIS IS A RESUBMITTAL OF TRANSMITTAL					
TO:		FROM:		CONTRACT NO.		CONTRACT REFERENCE DOCUMENT			
SPECIFICATION SEC. NO. (Cover only one section with each transmittal)		PROJECT TITLE AND LOCATION		DESCRIPTION OF ITEM SUBMITTED <small>(Type, size, model number, etc.)</small>		MFG OR COMM. CAT. CURVE DRAWING OR BROCHURE NO. <small>(See instruction no. 4)</small>		NO. OF COPIES	
ITEM NO.		SPEC. PARA. NO.		DRAWING SHEET NO.		FOR CONTRACTOR USE CODE		VARIATION	
1		1		1		1		1	
2		2		2		2		2	
3		3		3		3		3	
4		4		4		4		4	
5		5		5		5		5	
6		6		6		6		6	
7		7		7		7		7	
8		8		8		8		8	
9		9		9		9		9	
10		10		10		10		10	
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34		34		34		34		34	
35		35		35		35		35	
36		36		36		36		36	

# SUBMITTAL REGISTER

CONTRACT NO.

TITLE AND LOCATION DREDGING THIMBLE SHOAL CHANNEL						CONTRACTOR											
A C T I V I T Y  N O	T R A N S M I T T A L  N O	S P E C  S E C T	DESCRIPTION	P A R A G R A P H	G O V T  C L A S S I F I C A T I O N / E A R T H W O R K	CONTRACTOR: SCHEDULE DATES			CONTRACTOR ACTION		DATE FWD TO APPR AUTH/	APPROVING AUTHORITY			MAILED TO CONTR/	REMARKS	
						SUBMIT (g)	BY (h)	MATERIAL NEEDED (i)	A C T I O N  C O D E	DATE OF A C T I O N (k)		DATE RCD FROM CONTR (l)	DATE FWD TO OTHER REVIEWER (m)	DATE RCD FROM OTH REVIEWER (n)			A C T I O N  C O D E
(a)	(b)	(c)	ITEM SUBMITTED (d)	(e)	(f)	(g)	(h)	(i)	(j)	(k)	(l)	(m)	(n)	(o)	(p)	(q)	(r)
		01005	SD-01 Preconstruction Submittals														
			Dredging Intent Notification		FIO												
			Report of Dredging		FIO												
			Advance Notice for Dredging	1.5.1	FIO												
			Designated Acceptance Section Plan		G												
			Acceptance Section Survey Reports	1.5.2	FIO												
		01111	SD-01 Preconstruction Submittals														
			Site Safety and Health Plan (SSHP)		G												
			Accident Prevention Plan (APP)	1.4.1	G												
			Activity Hazard Analysis Plan(AHA)		G												
			Authorized Plant Operators Plan		G												
			Hurricane Plan		G												
			Diving Operations Plan		G												
			Designated first-aid and CPR trained attendants	1.4.7	FIO												
			Safety indoctrination certificates		FIO												
		01355	SD-01 Preconstruction Submittals														
			Environmental Protection Plan		G												
			Spill Control Plan		G												
			Recycling and Solid Waste Minimization Plan		G												

CONTRACT NO.

SUBMITTAL FORM, Jan 96



## SECTION 01355

## ENVIRONMENTAL PROTECTION

**1/04**

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

33 CFR 328	Definitions
40 CFR 68	Chemical Accident Prevention Provisions
40 CFR 302	Designation, Reportable Quantities, and Notification
40 CFR 355	Emergency Planning and Notification

## U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2003) U.S. Army Corps on Engineers Safety and Health Requirements Manual
WETLAND MANUAL	Corps of Engineers Wetlands Delineation Manual Technical Report Y-87-1

## 1.2 DEFINITIONS

Environmental pollution and damage is defined as the presence of chemical, physical, or biological elements or agents that adversely affect human health or welfare; unfavorably alter ecological balances of plant or animal communities; or degrade the environment from an aesthetic, cultural or historic perspective.

## 1.2.1 Environmental Pollution and Damage

Environmental pollution and damage is the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorably alter ecological balances of importance to human life; affect other species of importance to humankind; or degrade the environment aesthetically, culturally, or historically.

## 1.2.2 Environmental Protection

Environmental protection is the prevention and control of pollution and habitat disruption that may occur to the environment during construction. The control of environmental pollution and damage requires consideration of land, water, and air; biological and cultural resources; and includes management of visual aesthetics; noise; solid, chemical, gaseous, and liquid waste; radiant energy and radioactive material as well as other pollutants.

#### 1.2.3 Contractor Generated Hazardous Waste

Contractor generated hazardous waste means materials that, if abandoned or disposed of, may meet the definition of a hazardous waste. These waste streams would typically consist of material brought on site by the Contractor to execute work, but are not fully consumed during the course of construction. Examples include, but are not limited to, excess paint thinners (i.e. methyl ethyl ketone, toluene), waste thinners, excess paints, excess solvents, waste solvents, excess pesticides, and contaminated pesticide equipment rinse water.

#### 1.2.4 Waters of the United States

All waters which are under the jurisdiction of the Clean Water Act, as defined in 33 CFR 328.

#### 1.2.5 Wetlands

Wetlands means those areas that are inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, and bogs. Official determination of whether or not an area is classified as a wetland must be done in accordance with WETLAND MANUAL.

### 1.3 GENERAL REQUIREMENTS

The Contractor shall minimize environmental pollution and damage that may occur as the result of construction operations. The environmental resources within the project boundaries and those affected outside the limits of permanent work shall be protected during the entire duration of this contract. The Contractor shall comply with all applicable Federal, State, and local laws and regulations. The Contractor shall provide environmental protective measures and procedures to prevent and control pollution, limit habitat disruption, and correct environmental damage that occurs during construction. The Contractor shall be responsible for any delays resulting from failure to comply with environmental laws and regulations.

#### 1.4 SUBCONTRACTORS

The Contractor shall ensure compliance with this SECTION by subcontractors.

#### 1.5 PAYMENT

No separate payment will be made for work covered under this SECTION. The Contractor shall be responsible for payment of fees associated with environmental permits, application, and notices obtained by the Contractor. All costs associated with this SECTION shall be included in the contract price. The Contractor shall be responsible for payment of all fines and fees for violation or non-compliance with Federal, State, Regional and local laws and regulations.

#### 1.6 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures"

##### SD-01 Preconstruction Submittals

Environmental Protection Plan; G

Prior to commencement of any work, including delivery of any plant, equipment or construction materials to the site, submit a plan for environmental protection as specified herein.

The individual plans indicated below and their respective requirements specified herein, are Plans independent of the Environmental Protection Plan; however, due to the respective requirements within each to be environmental in nature, each Plan shall be included with the Environmental Protection Plan for approval.

Spill Control Plan; G

Recycling and Solid Waste Minimization Plan; G

Air Pollution Control Plan; G

Contaminant Prevention Plan; G

Historical, Archaeological, Cultural Resources, Biological Resources and Wetlands Plan; G

Operational Plan to Minimize Turtle Takes and Whale Encounters; G

Hopper Dredge Special Recording Requirements Plan; G

Hopper Dredge Endangered Species Special Equipment Plan; G

#### 1.7 ENVIRONMENTAL PROTECTION PLAN REQUIREMENTS

The Contractor shall submit an Environmental Protection Plan for review and approval by the Contracting Officer. This Environmental Protection Plan shall consist of a written narrative, as well as any individual plans, supplemental drawings, documents, and photographs required to verify the Contractor's work will be in accordance with all laws and regulations governing the work as indicated and specified. The Contractor shall submit this plan and all supplementary data for approval at least 10 calendar days prior to the scheduled Preconstruction Conference. The Contractor will be informed in writing of any revisions as may be required by the Contracting Officer at the Preconstruction Conference and shall submit a final plan for final approval not later than 5 calendar days prior to start of scheduled construction activities. Acceptance is conditional and is predicated upon satisfactory performance during construction. The Government reserves the right to require the Contractor to make changes in the Environmental

Protection Plan or operations if the Contracting Officer determines that environmental protection requirements are not being met. The plan shall detail the actions that the Contractor shall take to comply with all applicable Federal, State, and local laws and regulations concerning environmental protection and pollution control and abatement, as well as the additional specific requirements of this contract. No physical work at the site, including delivery of the Contractor's plant and equipment and construction materials, shall begin prior to acceptance by the Contracting Officer of the Contractor's Environmental Protection Plan covering the work to be performed. No requirement in this Section shall be construed as relieving the Contractor of any applicable Federal, State, and local environmental protection laws and regulations. During Construction, the Contractor shall be responsible for identifying, implementing, and submitting for approval any additional requirements to be included in the Environmental Protection Plan.

#### 1.7.1 Contents of Environmental Protection Plan

The purpose of the Environmental Protection Plan is to present a comprehensive overview of known or potential environmental issues which the Contractor must address during construction. Issues of concern shall be defined within the Environmental Protection Plan as outlined in this section. The Contractor shall address each topic at a level of detail commensurate with the environmental issue and required construction task(s). Topics or issues which are not identified in this SECTION, but which the Contractor considers necessary, shall be identified and discussed after those items formally identified in this SECTION. The Environmental Protection Plan shall be current and maintained onsite by the Contractor. The Environmental Protection Plan shall comply with the requirements of EM 385-1-1 and include, but not be limited to, the following:

- a. Name of person within the Contractor's organization who is responsible for ensuring adherence to the Environmental Protection Plan and those who may be delegated with separate responsibilities subject to approval of the CO.
- b. Name(s) and qualifications of person(s) responsible for manifesting hazardous waste to be removed from the site, if applicable.
- c. Name(s) and qualifications of person(s) responsible for training the Contractor's environmental protection personnel.
- d. Description of the Contractor's environmental protection personnel training program.
- e. When applicable to the work to be performed, an erosion and sediment control plan which identifies the type and location of the erosion and sediment controls to be provided. The plan shall include monitoring and reporting requirements to insure that the control measures are in compliance with the erosion and sediment control plan, Federal, State, and local laws and regulations.
- f. When applicable, drawings showing locations of proposed pipeline alignments, material storage areas, equipment storage structures, and

sanitary facilities.

g. The Contractor shall include in the plan, as coordinated with the Activity Hazard Analysis and as required in the specifications, the details of environmental monitoring requirements and a description of how this monitoring will be accomplished under the laws and regulations governing the work.

h. Work area plan showing the proposed activity in each portion of the area and identifying the areas of limited use or nonuse. Plan should include measures for marking the limits of use areas including methods for protection of features to be preserved within authorized work areas.

i. The Contractor shall provide, as part of the Environmental Protection Plan, a list of all State and local environmental laws and regulations that apply to the construction operations under the Contract.

j. The Contractor shall include as part of the environmental protection plan, a Spill Control Plan. The plan shall include the procedures, instructions, and reports to be used in the event of an unforeseen spill of a substance regulated by the Emergency Response and Community Right-to-Know Act or regulations 40 CFR 68, 40 CFR 302, 40 CFR 355, and regulated under State or Local laws and regulations. The Spill Control Plan supplements the requirements of EM 385-1-1. This plan shall include as a minimum:

1. The name of the individual who will report any spills or hazardous substance releases and who will follow up with complete documentation. This individual shall immediately notify the Contracting Officer in addition to the legally required Federal, State, and local reporting channels (including the National Response Center at 1-800-424-8802 and the Virginia DEQ, Northern Virginia Regional Office, 13901 Crown Court, Woodbridge, Va. 22193, phone (703) 583-3800) if a reportable quantity spill occurs. The plan shall contain a list of the required reporting channels and telephone numbers.

2. The name and qualifications of the individual who will be responsible for implementing and supervising the containment and cleanup.

3. Training requirements for Contractor's personnel and methods of accomplishing the training.

4. A list of materials and equipment to be immediately available at the job site, tailored to cleanup work of the potential hazard(s) identified.

5. The names and locations of suppliers of containment materials and locations of additional fuel oil recovery, cleanup, restoration, and material-placement equipment available in case of an unforeseen spill emergency.

6. The methods and procedures to be used for expeditious contaminant cleanup.

k. A solid waste disposal plan identifying methods and locations for solid waste disposal. The plan shall include schedules for disposal. The Contractor shall identify any subcontractors responsible for the transportation and disposal of solid waste. Licenses or permits shall be submitted for solid waste disposal sites that are not a commercial operating facility. Evidence of the disposal facility's acceptance by signature of authorized agent of the solid waste to be disposed in the site shall be attached to this plan. The report shall be submitted with the Daily Report of Operations and shall indicate by way-bills the total amount of waste generated and total amount of waste in cubic yards or tons disposed.

l. A recycling and solid waste minimization plan with a list of measures to reduce consumption of energy and natural resources. The plan shall detail the Contractor's actions to comply with and to participate in Federal, State, Regional, and local government sponsored recycling programs to reduce the volume of solid waste at the source.

m. An air pollution control plan detailing provisions to assure that dust, debris, materials, trash, and other wastes generated by the Contractor's activities do not become air borne and travel off the project site.

n. A contaminant prevention plan that: identifies potentially hazardous substances to be used on the job site; identifies the intended actions to prevent introduction of such materials into the air, water, or ground; and details provisions for compliance with Federal, State, and local laws and regulations for storage and handling of these materials. In accordance with EM 385-1-1, a copy of the Material Safety Data Sheets (MSDS) and the maximum quantity of each hazardous material to be on site at any given time shall be included in the contaminant prevention plan. As new hazardous materials are brought on site or removed from the site, the plan shall be updated.

o. A waste water management plan that identifies the methods and procedures for management and discharge of waste waters which are directly derived from construction activities.

p. A historical, archaeological, cultural resources, biological resources and wetlands plan that defines procedures for identifying and protecting historical, archaeological, cultural resources, biological resources and wetlands known to be on the project site: identifies procedures to be followed if historical archaeological, cultural resources, biological resources and wetlands not previously known to be onsite or in the area are discovered during construction. The plan shall include methods to assure the protection of known or discovered resources and shall identify lines of communication between Contractor personnel and the Contracting Officer.

q. An Operational Plan to Minimize Turtle and Sturgeon Takes and Whale Encounters that identifies the methods and procedures to minimize

contact with whales, sturgeons and turtles during the dredging work.

#### 1.8 ENVIRONMENTAL ASSESSMENT OF CONTRACT DEVIATIONS

Any deviations, requested by the Contractor, from the drawings, plans and specifications which may have an environmental impact will be subject to approval by the Contracting Officer and may require an extended review, processing, and approval time. The Contracting Officer reserves the right to disapprove alternate methods, even if they are more cost effective, if the Contracting Officer determines that the proposed alternate method will have an adverse environmental impact.

#### 1.9 NOTIFICATION

The Contracting Officer will notify the Contractor in writing of any observed noncompliance with Federal, State or local environmental laws or regulations, permits, and other elements of the Contractor's Environmental Protection plan. The Contractor shall, after receipt of such notice, inform the Contracting Officer of the proposed corrective action and take such action when approved by the Contracting Officer. The Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No time extensions shall be granted or equitable adjustments allowed to the Contractor for any such suspensions. This is in addition to any other actions the Contracting Officer may take under the contract, or in accordance with the Federal Acquisition Regulation or Federal Law.

### PART 2 PRODUCTS (NOT USED)

### PART 3 EXECUTION

#### 3.1 PROTECTION OF FEATURES

This section supplements the Contract Clause PROTECTION OF EXISTING VEGETATION, STRUCTURES, EQUIPMENT, UTILITIES, AND IMPROVEMENTS. The Contractor shall prepare a list of features requiring protection under the provisions of the contract clause that are not specifically identified on the drawings or otherwise specified as environmental features requiring protection. The Contractor shall protect those environmental features as indicated and specified, in spite of interference that their preservation may cause to the Contractor's work under the contract.

#### 3.2 SPECIAL ENVIRONMENTAL REQUIREMENTS (Permits)

This section supplements the Contractor's responsibility under the contract clause "PERMITS AND RESPONSIBILITIES" to the extent that the Government has already obtained environmental permits for the required dredging and dredged material placement. These special environmental requirements are an outgrowth of environmental commitments made by the Government during the project development. All dredging, transport and placement of dredged material under this contract shall be in strict compliance with the conditions set forth in the Virginia Department of Environmental Quality Water Protection Permit and National Marine Fisheries Service (NMFS) Incidental Take Statement/Biological Opinion that are included as a part of

this contract at the end of this SECTION. The contract plans and specifications have been prepared to comply with this permit and opinion which were established during the planning and development of this project. The Contractor is advised that any deviations from the construction methods and procedures indicated by the plans and specifications that are not prior approved in writing by the Contracting Officer, and any non-compliance with or violation of the conditions stated in the Permit or Biological Opinion,, shall be cause for the Contracting Officer issuing a stop work order. Any stop work orders issued for any of these causes will not be subject to time extensions or cost recovery by the Contractor. Any non-compliance with or violation of the conditions stated in the Permit or NMFS Incidental Take Statement/Biological Opinion, noted herein may result in revocation of the permits for the project and may result in criminal and civil penalties against the Contractor.

### 3.3 WATER RESOURCES

The Contractor shall monitor construction activities to prevent pollution of surface and ground waters. Toxic or hazardous chemicals shall not be applied to soil or vegetation. All water areas affected by construction activities shall be monitored by the Contractor. The Contractor shall perform monitoring, inspections, sampling and testing, reporting, and record keeping as indicated and specified.

### 3.4 RECYCLING AND WASTE MINIMIZATION

The Contractor shall participate in State and local government sponsored recycling programs.

### 3.5 TRAINING OF CONTRACTOR PERSONNEL

Contractor personnel shall be trained in reducing sea turtle takes, environmental protection and pollution control. The Contractor shall conduct environmental protection/pollution control meetings for all Contractor personnel as a part of the weekly toolbox meetings. The training and meeting agenda shall include methods of detecting and avoiding pollution, familiarization with pollution standards, both statutory and contractual, installation and care of facilities, and instruments required for monitoring purposes to ensure adequate and continuous environmental protection/pollution control. Anticipated hazardous or toxic chemicals or wastes, and other regulated contaminants, shall also be discussed. Other items to be discussed shall include recognition and protection of archaeological sites and artifacts, wildlife and waterfowl habitats, and construction material placement operations.

### 3.6 PROTECTION OF MARINE ANIMALS, WILDLIFE AND VEGETATION

The Contractor is informed that the work areas are in a portion of Virginia frequented by migratory birds and is a native habitat for sea turtles, sturgeon, whales, eagles, hawks, egrets, herons, pelicans, terns, and other wildlife that are identified as either endangered species protected by federal law or species of special concern for Commonwealth of Virginia agencies. If, in the performance of this contract, evidence of the possible disturbance to any such migratory bird or listed species may occur, the



Contractor shall notify the Contracting Officer immediately, giving the location and nature of the findings. The Contractor shall advise all personnel associated with the operation of the vessels and plant of the civil and criminal provisions of the Endangered Species Act, the Migratory Bird Act, and the Marine Mammal Protection Act. The Contractor shall comply with all laws and regulations governing the work, the National Marine Fisheries Service Incidental Take Statement included at the end of this SECTION, and the provisions set forth in this Section. In the event that endangered or protected species are affected by this work, the work under this contract may be suspended or terminated as determined by the Contracting Officer. All crew members of the hopper dredge, attendant plant operators, and those sub-contractors employed on the work shall be required to read and certify in writing they are aware of the contents of this specification and the Contractor's Environmental Protection Plan. Copies of this Section and the Environmental Protection Plan, including a posting warning of the civil and criminal liabilities that violators are subject to for non-compliance to the requirements of them, shall be clearly posted with other required postings on-site for employees.

### 3.7 SPECIAL PRECAUTIONS FOR SEA TURTLES AND WHALES DURING DREDGING OPERATIONS

The Contractor shall develop a written Operational Plan to Minimize Turtle and Sturgeon Takes and Whale Encounters. This Plan shall be prepared in consultation with the National Marine Fisheries Service (NMFS) Northeast Regional Office, Protected Resources Division (attention: Mary Colligan), One Blackburn Drive, Gloucester, Massachusetts 01930 for obtaining the services of qualified Endangered Species Observers as required to be employed by the Contractor during dredging work that is performed from April 1 to November 30. The Contractor shall submit this Operational Plan as part of the Environmental Protection Plan. The Contractor shall ensure the adequate instruction and training of all personnel associated with the operation of the dredging vessel and his near shore plant regarding the possible presence of endangered sea turtles and whales and the need to avoid contact and collisions with these animals.

#### 3.7.1 Endangered Species Observers on Bridge Watch

The Contractor shall be required to provide on all towed and self-propelled vessels and plant NMFS approved Endangered Species Observers on bridge watch to monitor the surface of the water for the presence of sea turtles from April 1 to November 30. In the event that Endangered Species Observers bridge watch personnel observe endangered species, they shall inform the master of the vessel and appropriate action shall be taken to avoid a vessel collision with these animals.

#### 3.7.2 Endangered Species Observer Requirements

Endangered Species Observers shall be NMFS approved observers with demonstrated abilities to identify whale species, sturgeon species, sea turtle species, and turtle parts as identified in the NMFS Incidental Take Statement/Biological Opinion included as a part of this SECTION. Verification of current approval status with the NMFS shall be provided for all observers prior to performing any dredging. A minimum of one NMFS

approved observer shall be onboard the dredge at all times from April 1 through November 30, or whenever the Chesapeake Bay surface water temperatures reach or exceed 11 degrees centigrade, whichever comes first. While onboard, observers shall provide the required inspection coverage on a rotating basis of six hours on and six hours off each day, adjusting their duty times to maximize observance during periods of dredging. The Endangered Species Observer shall monitor vessel operations to ensure the Endangered Species Act 500-yard approach regulations for right whales and a minimum 100-yard approach for other listed species is complied with during vessel dredging and transit. When whales or other listed species are present vessels must, except when precluded by safety requirements, follow the advice of the onboard Endangered Species Observer to avoid collision with whales or other listed species. Sufficient time as approved by the Contracting Officer must be allotted between each loading cycle to allow the Endangered Species Observer to inspect and clean the drag head, thoroughly clean the screening devices, and document and record findings of inspections on Endangered Species Observer Forms and Incident Reports. The Endangered Species Observer shall be the only person allowed to remove biological material from the screening devices. If listed species are present during dredging, material transport or vessel transit, vessels transiting the area must post a watch, avoid intentional approaches closer than 100 yards (or 500 yards in the case of right whales) when in transit, and reduce vessel speeds to below 4 knots.

#### 3.7.2.1 Protected Whales and Other Listed Species Observer Requirements

The dredging and placement areas are in the NMFS Northeast Region 6. All whales, dolphins and porpoises in the Northeast Region 6 are federally protected by the Marine Mammal Protection Act (MMPA) and most large whales in the Region are further protected under the Endangered Species Act (ESA). Additionally, the right whale is protected by separate State and Federal regulations that prohibit approach within 500 yards of this species. For the duration of this contract, the Contractor shall be required to provide a dedicated observer to monitor vessel operations to ensure the Endangered Species Act 500-yard approach regulations for right whales and a minimum 100-yard approach for other listed species is complied with during vessel dredging, transit, and ancillary vessel operations in the scheduled work areas. When approved by the Contracting Officer, the Endangered Species Observer on-duty can serve as the dedicated observer to monitor for the whales and other species as specified; however, this monitoring function shall in no way interfere with their required Endangered Species Observer watch duties as specified. When whales or other listed species are present vessels must, except when precluded by safety requirements, follow the advice of the onboard Dedicated Observer to avoid collision with whales or other listed species. Additionally, regulations of the NMFS to avoid intentional approaches of whales and other listed species when in transit must be followed and shall be posted in a conspicuous place for all workers. An Internet Webpage where NMFS provides guidance for the general public to review certain requirements concerning whale-watching and other listed species, and the vessel operations to occur during encounters with these animals, is located at:

[http://www.nmfs.noaa.gov/prot\\_res/readingrm/MMView/nr051999.pdf](http://www.nmfs.noaa.gov/prot_res/readingrm/MMView/nr051999.pdf)

The information from this Webpage is provided solely for the Contractor's information. Compliance with the requirements of the Endangered Species Act, Marine Mammal Protection Act, and any Federal or State laws and regulations that supplement these Acts are the responsibility of the Contractor. Failure to comply with these regulations may result in fines or civil penalties of up to \$10,000 or criminal penalties of up to \$20,000 plus IMPRISONMENT and/or SEIZURE OF VESSEL and other personal property.

### 3.7.3 Endangered Species Observer Forms, Incident Reports, and Weekly/Final Reports

The Contractor shall prepare and submit a Weekly Report listing all Endangered Species Observer Forms and Incident Reports prepared by the Endangered Species Observer in the covered period to the National Marine Fisheries Service, Northeast Regional Office, Protected Resources Division (attention: Mary Colligan), One Blackburn Drive, Gloucester, Massachusetts 01930. The Contractor shall include copies of all load observation sheets, record of findings for inspections of drag head and screening devices, and any other data compiled by the Endangered Species Observer in preparing the Endangered Species Observer Forms and Incident Reports during the covered period. This Weekly Report shall be signed and dated by the Endangered Species Observer when complete, with a copy of the report and a documented postal receipt verifying report as sent within seven calendar days of the conclusion of the covered period provided to the Contracting Officer. The Endangered Species Observer Forms and Incident Reports shall be in the National Marine Fisheries Service format provided in the NMFS Incidental Take Statement/Biological Opinion attached to the end of this Section.

a. The Endangered Species Observer shall complete an Endangered Species Observer Form for each loading cycle, whether listed species are present or not, and when turtles are observed during vessel transit. All forms completed by an Endangered Species Observer during his tour of duty shall be listed on the Endangered Species Observer Form and submitted to the Contractor at the end of his tour of duty. At the same time, a copy shall be provided to the Contracting Officer. The Contractor shall record time of receipt of the Endangered Species Observer Form and all associated data in his Daily Report of Operations.

b. The Endangered Species Observer shall complete an Incident Report when turtles, or turtle parts are discovered in the dredging area; when live turtles, dead whole turtles, or turtle parts are taken incidental to the dredging work; or if any live turtle is struck or otherwise contacted by any Contractor vessel or movement of his plant. The Contractor shall immediately stop movement of the plant or vessel upon discovery of contact and notify the Endangered Species Observer. The Contractor shall take all measures and actions as may be directed by the Endangered Species Observer to search for and verify condition of the turtle encountered, and when injured or killed, recover the encountered turtle. If dead turtles or turtle parts are taken incidental to the work and discovered on the drag head or in the screening devices by the Endangered Species Observer, the location of discovery and remains shall be photographed and nature of the findings fully described in an Incident Report. Disposal of remains shall be as specified below in paragraph "Endangered Species Disposition".

c. The Contractor shall complete and submit a Final Report for the entire work listing all Endangered Species Observer Forms and Incident Reports prepared by the Endangered Species Observer during the entire contract period to the National Marine Fisheries Service, Northeast Regional Office, Protected Resources Division, One Blackburn Drive, Gloucester, Massachusetts 01930. This Final Report shall be signed and dated by the Endangered Species Observer when complete, with a copy of the report and a documented postal receipt verifying report as sent within twenty calendar days of the conclusion of dredging provided to the Contracting Officer.

#### 3.7.4 Endangered Species Disposition

After completing an Incident Report, the Endangered Species Observer shall notify Carrie McDaniel (978) 281-9388 or Mary Colligan (978) 281-9116 at NMFS within 24 hours of the take. An Incident Report for sea turtle and shortnose sturgeon take shall also be completed by the observer and sent to Carrie McDaniel via FAX (978) 281-9394 within 24 hours of the take. The Endangered Species Observer identifying any dead turtle to be a Kemp's Ridley Sea Turtle shall photograph and place the remains in plastic bags, labeled to show the contract title and location, time, date, specific location taken, load number, and placed in cold storage. In addition, the remains of these turtles shall be labeled to indicate if the remains appear to be recent or old, based on fresh blood, odor, and length of time estimated to have been dead in water at the time when they were discovered. Final disposition of these turtles will be as directed by the National Marine Fisheries Service. Any other dead sea turtles, shortnose sturgeon, turtle parts, or shortnose sturgeon parts taken incidental to the work shall be photographed by an Endangered Species Observer, attached to a weight, and disposed overboard in the Dam Neck placement area where the remains will not re-enter the dredging area as directed by the NMFS. Live sea turtles taken incidental to the work shall be photographed and examined by the Endangered Species Observer for injury. Live sea turtles and shortnose sturgeon determined by the Endangered Species Observer to be uninjured shall be measured for size and weight, and released by the Endangered Species Observer in a manner as directed by the NMFS. Turtles determined to be injured shall be maintained and attended on-board the vessel as directed by the Endangered Species Observer until transported to an approved rehabilitation facility (Virginia Marine Science Museum (757) 437-4949 and Virginia Institute of Marine Science (804) 684-7313). All findings and determinations of live turtles by the Endangered Species Observer shall be recorded on the Incident Report and Endangered Species Observer Form.

#### 3.7.5 Hopper Dredge Special Recording Requirements Submittals

All hopper dredges shall be equipped with recording devices for each drag head that capture real time, drag head elevation, slurry density, and at least two of the following for each respective pump: pump slurry velocity measured at the output side, pump vacuum, or pump RPM. The Contractor shall record continuous real time positioning of the dredge, by plot or electronic means, during the entire dredging cycle including dredging area and disposal area. The recording system shall be capable of capturing data

at variable intervals but with a frequency of not greater than every 60 seconds. All data shall be time correlated to a 24 hour clock and the recording system shall include a method of daily evaluation of the data collected. Data shall be furnished to the Contracting Officer for each day's operation on a daily basis. A written Hopper Dredge Special Recording Requirements Plan indicating those methods the Contractor intends to use in order to satisfy these requirements shall be included the Environmental Protection Plan and coordinated with the Contractor's Quality Control Plan.

### 3.7.6 Hopper Dredge Endangered Species Special Equipment Submittals

The Contractor shall submit drawings and operational specifications of all proposed endangered species drag head deflectors, special screening, and lighting equipment for the review and approval of the Contracting Officer. The Contractor shall submit calculations, drawings and operational specifications to ensure the turtle deflector operates properly for the proposed depths of the channel specified. A written Hopper Dredge Endangered Species Special Equipment Plan indicating those methods the Contractor intends to use in order to satisfy these requirements shall be included the Environmental Protection Plan and coordinated with the Contractor's Quality Control Plan. The Contractor's submittals shall be provided to reflect proper operations in accordance with dragtender instrument readings and the respective printouts verifying dredging activities are performed as specified. Scaled drawings demonstrating the complete geometry of drag arm, drag head, and turtle deflector shall be submitted in hard copy and electronic format (AutoCAD 2000). The following data and calculations shall be provided:

- a. Length of drag arm from drag arm pivot point to gimbal.
- b. Length of drag arm from gimbal to drag head.
- c. Range of gimbal deflection angle (+/- degrees).
- d. Expected drag head operating depths.
- e. Calculated depth of plowing for the leading edge of deflector at the maximum +/- gimbal deflection range and expected operation depths.
- f. Turtle deflector dimensions.
- g. Link lengths.
- h. Angle between centerline of drag arm and turtle deflector.
- i. Point on the drag head where the depth recording data is obtained.
- j. Vertical dimension for drag arm pivot point to vessel draft.

In the event the Contractor brings additional dredging plant to the site or removes his dredge from the project area once approved for use, the same procedures for approval as specified shall apply for the plant prior to use on the work. The Contractor shall provide the following special equipment on all hopper dredges used on this work:

#### a. Drag Head Deflectors

All hopper dredge drag heads shall be equipped with rigid sea turtle deflectors that are rigidly attached. Dredging shall not be performed without a turtle deflector device that has been approved by the Contracting Officer. The turtle deflector device shall be maintained in operational condition for the entire dredging operation.

(1) Deflector Design

The leading vee-shaped portion of the deflector shall have an included angle of less than 90 degrees. Internal reinforcement shall be installed in the deflector to prevent structural failure of the device. The leading edge of the deflector shall be designed to have a plowing effect of at least 6 inch depth when the drag head is being operated. Appropriate instrumentation or indicator shall be used and kept in proper calibration to insure the critical "approach angle" is maintained at all times the pumps are active. If adjustable depth deflectors are installed, they shall be rigidly attached to the drag head using either a hinged aft attachment point or an aft trunnion attachment point in association with an adjustable pin front attachment point or cable front attachment point with a stop set to obtain the 6 inch plowing effect. This arrangement allows fine-tuning the 6 inch plowing effect for varying depths. After the deflector is properly adjusted there shall be no openings between the deflector and the drag head that are more than 4 inch by 4 inch.

(2) Screening Equipment

The Contractor shall install baskets or screening over each respective hopper inflow with no openings greater than 4 inch x 4 inch. The method selected shall depend on the construction of the dredge used and shall be approved by the Contracting Officer prior to commencement of dredging. The screening shall provide 100% screening of the hopper inflow. The screens and baskets shall be maintained in operational condition and shall remain in place throughout the performance of the work.

(3) Lighting Equipment

The areas where screens or gratings are installed shall be provided with suitable lighting to allow safe observations of the screen devices during periods of darkness or reduced visibility and shall be approved by the Contracting Officer. Safe access shall be provided to the inflow baskets or screens to allow the observer to inspect for turtles, turtle parts or damage.

(4) Paint Test Inspection of Drag head

The Contractor shall perform paint tests to ensure turtle deflector equipment is operating properly. Testing shall be performed as a minimum on a weekly basis and immediately following a failed paint test, turtle take incident, or following equipment modifications (drag heads, turtle deflector, link modifications, and other parts of the dredging apparatus). Additionally, the Government reserves the right to direct paint tests at any time to verify compliance with specified requirements. Photographic documentation of deflector paint test results shall be provided when testing is performed in the absence of the Contracting Officer. General procedures for paint test are as follows:

Equipment preparation:

- a. Vertical markings shall be placed on the entire length of the abrasive resistant doubler plate.
- b. Fluorescent orange paint shall be used to paint vertical strips the entire height of the abrasive resistant doubler plate with six inch spacing on center for the entire length of the deflector.

Test Procedure:

- a. Deflector shall have a minimum plow depth of six inches measured vertically.
- b. Deflector shall be in contact with channel bottom for a period of two to three minutes for coarse sediments and four to six minutes for fine sediments then promptly inspected.

Test Results:

- a. A paint test shall receive a pass if paint strips indicate wear from sediment scour for a minimum height of six inches for the leading edge of the deflector.

Test Documentation:

- a. The Contractor shall document the following paint test information and submit with CQC signature verifying results:

- \* Load number
- \* Time of paint test and date
- \* Duration of paint test
- \* Material type
- \* Observed plow depth of the leading edge of the deflector during the paint test
- \* Gimbal angle during paint test
- \* Test result: pass/fail
- \* Failed test: document corrective action taken for re-test.
- \* Photo documentation of deflector paint test results.

### 3.7.7 Hopper Dredge Special Operating Procedures

The Contractor shall operate the hopper dredge to minimize the possibility of taking sea turtles. When initiating dredging, the drag head shall be placed on the bottom during priming of the suction pump. If the drag head or drag arm becomes clogged during dredging activity, the pump shall be shut down, the drag arm raised, and the drag head or drag arm flushed out by trailing the drag arm along side the ship. If plugging conditions persist, the drag head shall be placed on deck and sufficient numbers of water ports opened on the drag head to prevent future plugging. Upon completion of a dredge track line, the drag tender shall coordinate his work practice to:

- 1) throttle back on the RPMs of the suction pump engine to an idling speed (generally less than 100 RPMs) prior to raising the drag head off the bottom, so that no flow of material is coming through the pipe into the dredge hopper. Before the drag head is raised, the vacuum gauge on the pipe should read zero, so that no suction exists in the drag arm or drag head, and no suction force exists that can impinge a turtle on the drag head grate;
- 2) hold the drag head firmly on the bottom with no flow conditions for approximately 10 to 15 seconds before raising the drag head, then, raise the drag head quickly off the bottom and up to a mid-water column level in a manner to further reduce the potential for any adverse interaction with nearby turtles;
- 3) re-orient the dredge quickly to the next dredge line; and
- 4) re-position the drag head firmly on the bottom prior to bringing the dredge pump to normal pumping speed and re-starting dredging activity.

The Contractor shall not raise the drag head off the bottom to increase suction velocities. The primary adjustment for providing additional mixing water to the suction line shall be through water ports. To ensure that suction velocities do not drop below appropriate levels, the Contractor's personnel shall monitor production meters throughout the loading cycle and adjust primarily the number and opening sizes of water ports. Water port openings on top of the drag head, or on raised stand pipes above the drag head, shall be screened before they are utilized on the dredging project. If a dredge section includes sandy shoals on one end of a tract line and mud sediments on the other end of the tract line, the Contractor shall adjust the equipment to eliminate drag head pick-ups to clear the suction line.

### 3.8 U.S. DEPARTMENT OF AGRICULTURE (USDA) QUARANTINED CONSIDERATIONS

The Contractor shall thoroughly clean all construction equipment at the prior job site in a manner that ensures all residual soil is removed and that egg deposits from plant pests are not present. The Contractor shall consult with the USDA Plant Protection and Quarantine (USDA - PPQ) jurisdictional office for additional cleaning requirements that may be necessary.

### 3.9 POST CONSTRUCTION CLEANUP

The Contractor shall clean up all areas used for construction in accordance with Contract Clause: "Cleaning Up". The Contractor shall, unless otherwise instructed in writing by the Contracting Officer, obliterate all signs of temporary construction facilities such as haul roads, work area, structures, foundations of temporary structures, stockpiles of excess or waste materials, and other vestiges of construction prior to final acceptance of the work. The disturbed area shall be graded, filled and the entire area seeded unless otherwise indicated.

-- End of Section --







*Thimble shoals*

# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

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Virginia Beach, VA 23462  
Tel# (757) 518-2000  
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Dennis H. Treacy  
Director

Francis L. Daniel  
Tidewater Regional Director

February 9, 2001

U.S. Army Corps of Engineers, Norfolk District  
Attn: Ronald G. Vann, P.E.  
Chief, Operations Branch  
803 Front Street  
Norfolk, Virginia 23510

RE: VWP Permit No. 00-0548  
Thimble Shoals Navigation Channel

Dear Mr. Vann:

In accordance with the application, we have enclosed the VWP Permit for the Thimble Shoals Navigation Channel in Hampton Roads, Virginia, pursuant to the Virginia Water Protection Permit Regulation (9 VAC 25-210, formerly VR 680-15-02) and Section 401 of the Clean Water Act Amendments of 1977, Public Law 95-217.

The provisions and conditions contained therein according to Section 401(a)(1) of the Clean Water Act require that:

"any applicant for a Federal license or permit to conduct any activity including, but not limited to, the construction or operation of facilities, which may result in any discharge in the navigable waters, shall provide the licensing or permitting agency a certification from the State in which the discharge originates or will originate, or, if appropriate, from the interstate water pollution control agency having jurisdiction over the navigable waters at the point where the discharge originates or will originate, that any such discharge will comply with the applicable provisions of sections 301, 302, 303, 306, and 307 of this Act."


As provided by Rule 2A:2 of the Supreme Court of Virginia, you have thirty days from the date of service (the date you actually received this decision or the date it was mailed to you, whichever occurred first) within which to appeal this decision by filing a notice of

appeal in accordance with the Rules of the Supreme Court of Virginia with the Director, Department of Environmental Quality. In the event that this decision is served on you by mail, three days are added to that period. Refer to Part 2A of the Rules of the Supreme Court of Virginia for additional requirements governing appeals from administrative agencies.

Alternatively, any owner under §§ 62.1-4.16, 62.1-44.17 and 62.1-44.19 of the State Water Control Law aggrieved by any action of the Board taken without a formal hearing, or by inaction of the Board, may demand in writing a formal hearing of such owner's grievance, provided a petition requesting such hearing is filed with the Board. Said petition must meet the requirements set forth in § 1.23(b) of the Board's Procedural Rule No. 1. In cases involving actions of the Board, such petition must be filed within thirty days after notice of such action is mailed to such owner by certified mail.

If you have any questions, please contact Sheri Kattan at (757) 518-2156.

Sincerely,

  
William M. Cash-Robertson  
Regional Permit Manager

Enclosures: Virginia Water Protection Permit

cc: U.S. Army Corps of Engineers  
Virginia Marine Resources Commission  
File



# COMMONWEALTH of VIRGINIA

## DEPARTMENT OF ENVIRONMENTAL QUALITY

James S. Gilmore, III  
Governor

John Paul Woodley, Jr.  
Secretary of Natural Resources

5636 Southern Boulevard  
Virginia Beach, VA 23462  
Tel# (757) 518-2000  
<http://www.deq.state.va.us>

Dennis H. Treacy  
Director

Francis L. Daniel  
Tidewater Regional Director

VWP Permit No. 00-0548  
Effective Date: February 9, 2001  
Expiration Date: February 9, 2011

### VIRGINIA WATER PROTECTION PERMIT ISSUED PURSUANT TO THE STATE WATER CONTROL LAW AND SECTION 401 OF THE CLEAN WATER ACT

Based upon an examination of the information submitted by the owner and in compliance with Section 401 of the Clean Water Act as amended (33 USC 1251 et seq.) and the State Water Control Law and regulations adopted pursuant thereto, the Department has determined that there is reasonable assurance that the activity authorized by this permit, if conducted in accordance with the conditions set forth herein, will protect instream beneficial uses and will not violate applicable water quality standards. The Department finds that the effect of the impact, together with other existing or proposed impacts to wetlands, will not cause or contribute to a significant impairment of state waters or fish and wildlife resources.

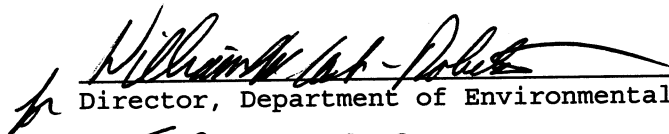

Permittee: U.S. Army Corps of Engineers  
Norfolk District  
Attn: Ronald G. Vann, P.E.

Address: 803 Front Street  
Norfolk, Virginia 23510

Activity Location: Thimble Shoals Navigation Channel, Hampton Roads

Activity Description: The applicant proposes maintenance and new dredging to provide continued navigation for commercial, governmental and recreational vessels.

The permitted activity shall be in accordance with this cover page, Part I - Special Conditions, and Part II - General Conditions.

  
for Director, Department of Environmental Quality  
  
Date

2. The DEQ TRO shall be provided a plans-for-dredging bathymetric survey, using mean lower low water datum, and proposed channel location for review at least 30 days prior to commencement of each dredging cycle.
3. Dredging is authorized by hydraulic hopper dredge or clamshell bucket with a bottom dump barge.
4. Dredging shall be accomplished in such a manner as to minimize disturbance of the bottom and minimize turbidity levels in the water column. Sediment resuspension recommendations outlined in the Corps research documents "Sediment Resuspension Characteristics of Selected Dredges - 1984" and "Literature Review and Technical Evaluation of Sediment Resuspension During Dredging - 1991" shall be followed when applicable. Documentation of recommendations that were or were not followed and supporting explanations shall be reported in writing to DEQ TRO within 30 days following completion of each dredging cycle.
5. Dredging shall result in a channel that has a 1000-foot bottom width and a length of approximately 13.9 miles.
6. Dredging is authorized to a maximum depth of -58 feet mean lower low water. This maximum depth includes any overdredge, advanced maintenance and margin of error.
7. All dredged material will be deposited into the Dam Neck Ocean Dredged Material Management Area unless a suitable beach placement site is approved in advance by the DEQ TRO.
8. Use of dredged material for beach nourishment shall require submittal of placement plans and grain size analysis to the DEQ TRO for approval prior to any beach nourishment activities.
9. The double handling of dredged material in State waters is prohibited.
10. State Water Quality Criteria (9 VAC 25-260-50) shall not be violated during dredging operations, unless otherwise caused by ambient conditions.
11. If evidence of impaired water quality, such as fish kills, is observed during dredging, dredging operations shall cease and the DEQ shall be notified immediately at (757) 518-2077.
12. No wetland fill or excavation is authorized by this permit.

13. A before-dredge bathymetric survey and draft mapping of the after-dredge bathymetric survey of the dredged area, using mean lower low water datum, shall be submitted to the DEQ TRO within **30 days** following completion of each dredging cycle. A final mapping of the after-dredge survey shall be submitted to DEQ TRO within **120 days** following completion of each dredging cycle.
14. Any time-of-year restrictions or other procedures or opinions for dredging and disposal recommended by the National Marine Fisheries Service, the Virginia Marine Resources Commission, or the U.S. Fish and Wildlife Service shall be strictly adhered to. A copy of these recommendations shall be provided to the DEQ TRO prior to commencement of dredging activities.
15. All correspondence regarding this permit shall be directed to:

Department of Environmental Quality  
Tidewater Regional Office  
Virginia Water Protection Permit Program Office  
5636 Southern Boulevard  
Virginia Beach, Virginia 23462

Include your Permit Number 00-0548 on all correspondence.

PART II - GENERAL CONDITIONS

A. Duty to Comply

The permittee shall comply with all conditions of the permit. Nothing in the regulations shall be construed to relieve the permittee of the duty to comply with all applicable Federal and State statutes, regulations and toxic standards and prohibitions. Any permit non-compliance is a violation of the Clean Water Act and State Water Control Law, and is grounds for enforcement action, permit termination, revocation, modification, or denial of a permit renewal application.

B. Mitigation Requirements

1. The permittee shall take all reasonable steps to
  - a) avoid all adverse environmental impact which could result from the activity,
  - b) where avoidance is impractical, minimize the adverse environmental impact, and
  - c) where impacts cannot be avoided, provide mitigation of the adverse impact on an in kind basis.

C. Reopener

This permit may be reopened to modify the conditions of the permit to meet new regulatory standards duly adopted by the Board. Causes for reopening permits include, but are not limited to:

1. When State law prohibits conditions in a permit which are more stringent than an applicable effluent limitation guideline;
2. When subsequently promulgated effluent guidelines are modified, and are based on best conventional pollutant control technology;  
or
3. When the circumstances on which the previous permit was based have materially and substantially changed or special studies conducted by the Department or permittee show material and substantial change since the time the permit was issued and thereby constitute cause for permit modification or revocation and reissuance.

D. Change in Management of Pollutants

All discharges and other activities authorized by this permit shall be made in accordance with the terms and conditions of this permit.

The permittee shall submit a new application 180 days prior to any modification to their activity which will:

1. Result in a significantly new or substantially increased discharge of dredged or fill material, or a significant change in the nature of the pollutants; or
2. Violate or lead to the violation of the terms and conditions of the permit or the Water Quality Standards of the Commonwealth.

E. Duty to Halt or to Reduce Activity

It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

F. Compliance with State and Federal Law

Compliance with this permit constitutes compliance with Virginia Water Protection Permit requirements of the State Water Control Law. Nothing in this permit shall be construed to preclude the institution of any legal action under or relieve the permittee from any responsibilities, liabilities, or other penalties established pursuant to any other State law or regulation or under the authority preserved by Section 510 of the Clean Water Act.

G. Property Rights

The issuance of this permit does not convey any property rights in either real or personal property, or any exclusive privileges, nor does it authorize any injury to private property or any invasion of personal property rights, nor any infringement of federal, state or local laws or regulations.

H. Severability

The provisions of this permit are severable.



I. Right of Entry

The permittee shall allow authorized State and Federal representatives, upon the presentation of credentials at reasonable times and under reasonable circumstances:

1. To enter the permittee's property, public or private, and have access to, inspect and copy any records that must be kept as part of the permit conditions;
2. To inspect any facilities, operations, or practices (including monitoring equipment) regulated or required under the permit;
3. To sample or monitor any substance, parameter or activity for the purpose of assuring compliance with the conditions of the permit or as otherwise authorized by law.

For the purpose of this section, the time for inspection shall be deemed reasonable during regular business hours. Nothing contained herein shall make an inspection time unreasonable during an emergency.

J. Transferability of Permits

This permit may be transferred to another person by a permittee if:

1. The current permittee notifies the Department of Environmental Quality 30 days prior to the proposed transfer of the title to the facility or property;
2. The notice of the proposed transfer includes a written agreement between the existing and proposed new owner containing a specific date of transfer of the permit responsibility, coverage and liability between them; and
3. The Department of Environmental Quality does not within the 30 day time period notify the existing owner of its intent to modify or revoke and reissue the permit.

Such a transferred permit shall, as of the date of the transfer, be as fully effective as if it had been issued directly to the new permittee.

K. Permit Modification

The applicant shall notify the Department of Environmental Quality of any modification of this project and shall demonstrate in a written statement to the Department that said modification will not violate any conditions of this permit. If such demonstration cannot be made, the permittee shall apply for a modification of this permit. This permit may be modified when any of the following developments occur:

1. When additions or alterations have been made to the affected facility or activity which require the application of permit conditions that differ from those of the existing permit or are absent from it;
  2. When new information becomes available about the operation or discharge covered by the permit which was not available at permit issuance and would have justified the application of different permit conditions at the time of permit issuance;
  3. When a change is made in the promulgated standards or regulations on which the permit was based;
  4. When it becomes necessary to change final dates in schedules due to circumstances over which the permittee has little or no control such as acts of God, materials shortages, etc. However, in no case may a compliance schedule be modified to extend beyond any applicable statutory deadline of the Clean Water Act;
  5. When an effluent standard or prohibition for toxic pollutant must be incorporated in the permit in accordance with provisions of Section 307(a) of the Clean Water Act;
  6. When changes occur which are subject to "reopener clauses" in the permit;
  7. When the Department of Environmental Quality determines that minimum instream flow levels resulting from the permittee's withdrawal of water are detrimental to the instream beneficial use, the withdrawal of water should be subject to further net limitations or when an area is declared a Surface Water Management Area pursuant to State water Control Law Sections 62.1-242 through 253, during the term of the permit;
  8. When the level of discharge of a pollutant not limited in the permit exceeds the level which can be achieved by available methodology for controlling such discharges;
-

9. When the permittee begins or expects to begin to cause the discharge of any toxic pollutant not reported in the application; or
10. When other states were not notified of the change in the permit and their waters may be affected by the discharge.

L. Permit Termination

This permit, after public notice and opportunity for a hearing, is subject to termination. Causes for termination are as follows:

1. Noncompliance by the permittee with any condition of the permit;
2. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts or the permittee's misrepresentation of any relevant facts at any time;
3. The permittee's violation of a special or judicial order;
4. A determination that the permitted activity endangers human health or the environment and can be regulated to acceptable levels by permit modification or termination; or
5. A change in any condition that requires either a temporary or permanent reduction or elimination of any discharge of dredged and fill material controlled by the permit.

M. Civil and Criminal Liability

Nothing in this permit shall be construed to relieve the permittee from civil and criminal penalties for noncompliance.

N. Oil and Hazardous Substance Liability

Nothing in this permit shall be construed to preclude the institution of legal action or relieve the permittee from any responsibilities, liabilities, or penalties to which the permittee is or may be subject under Section 311 of the Clean Water Act or Sections 62.1-44.34:14 through 62.1-44.34:23 of the State Water Control Law.

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O. Unauthorized Discharge of Pollutants

Except in compliance with this permit, it shall be unlawful for the permittee to:

1. Discharge into state waters sewage, industrial wastes, other wastes, or any noxious or deleterious substances, or
2. Otherwise alter the physical, chemical, or biological properties of such state surface waters and make them detrimental to the public health, or to animal or aquatic life, or to the uses of such waters for domestic or industrial consumption, or for recreation, or for other uses.



UNITED STATES DEPARTMENT OF COMMERCE  
National Oceanic and Atmospheric Administration  
NATIONAL MARINE FISHERIES SERVICE  
NORTHEAST REGION  
One Blackburn Drive  
Gloucester, MA 01930-2298

APR 25 2002

Colonel David L. Hansen  
District Engineer  
Department of the Army  
Norfolk District, Corps of Engineers  
Fort Norfolk, 803 Front Street  
Norfolk, Virginia 23510-1096

Dear Colonel Hansen:

Enclosed is the National Marine Fisheries Service's (NMFS) biological opinion on the impacts of the Army Corps of Engineers (ACOE) Norfolk District's dredging in the Thimble Shoal Channel and Atlantic Ocean Channel on threatened and endangered species under NMFS' jurisdiction. This biological opinion was prepared pursuant to the interagency consultation requirements of Section (7)(a)(2) of the Endangered Species Act.

The ACOE proposes to initiate the current deepening project as early as June, 2002 and construction of the entire project may take as long as four years to complete. Maintenance dredging of the Thimble Shoal and Atlantic Ocean Channels will occur approximately every two years. The existing biological opinion for Thimble Shoal Channel does not address deepening activities or dredging in the Atlantic Ocean Channel. However, an amendment was issued on March 30, 2001 which stated that the potential impacts of dredging in the Atlantic Ocean Channel on listed species are similar to those expected in Thimble Shoal Channel. The Virginia Beach Hurricane Protection Project biological opinion does not cover maintenance dredging, and the time frame for the completion of the project was one to two calendar years. Therefore, as a result of conversations between ACOE and NMFS, it was determined that a single biological opinion was needed to address all dredging activities (both deepening and maintenance) in the Thimble Shoal and Atlantic Ocean Channels.

This biological opinion is based on information provided in the NMFS February 7, 2001 biological opinion on maintenance dredging in the Thimble Shoal Federal Navigation Channel, the September 6, 2001 biological opinion that assessed dredging operations in the Thimble Shoal Channel and the Atlantic Ocean Channel as related to the Virginia Beach Hurricane Protection Project, correspondence with Mr. Craig Seltzer and Ms. Betty Grey Waring, ACOE, and other sources of information. It has been determined by NMFS that the dredging projects in the Thimble Shoal and Atlantic Ocean Channels may adversely affect, but are not likely to jeopardize the continued existence of listed species under NMFS' jurisdiction.

The enclosed biological opinion provides an Incidental Take Statement (ITS) for threatened and endangered sea turtles, as well as reasonable and prudent measures and terms and conditions necessary for ACOE to minimize impacts to these species. The anticipated level of take for dredging in Thimble Shoal and Atlantic Ocean Channels was determined based upon the greatest estimated amount of material to be dredged during deepening operations and the maximum and minimum amounts to be dredged in both channels during maintenance.



operations:

- During any given year, if the amount of dredged material to be removed is less than or equal to 5 million cy, NMFS anticipates that dredging in the two channels may result in the observed take of 18 loggerhead and 4 Kemp's ridley sea turtles.
- During any given year, if the amount of dredged material to be removed is less than or equal to 3 million cy, NMFS anticipates that dredging operations in the two channels may result in the observed take of 10 loggerhead and 2 Kemp's ridley sea turtles.
- During any given year, if the amount of dredged material to be removed is less than or equal to 1 million cy, NMFS anticipates that dredging operations in the two channels may result in the observed take of 4 loggerhead and 1 Kemp's ridley sea turtle.

The incidental level of turtle take is anticipated to be fresh dead. No incidental take for hawksbill or leatherback sea turtles is anticipated as these species are relatively unlikely to be prevalent in the action area and interactions with the dredge are expected to be low.

NMFS also expects that the deepening operations and maintenance dredging may take an additional unquantifiable number of previously dead sea turtle parts. A sea turtle take may not be considered related to dredge operations and count towards the above referenced anticipated take level if the condition of the specimen is in a severely decomposed or advanced state of decay and if the specimen is a turtle part. Provided that NMFS concurs with the ACOE's determination regarding the stage of decomposition, condition of the specimen, and likely cause of mortality, the take will not be attributed to the incidental take level for this project.

Additionally, NMFS also expects that relocation trawling in either of the channels may take an additional unquantifiable number of live loggerhead and Kemp's ridley sea turtles. As stated in the reasonable and prudent measures and terms and conditions of the Incidental Take Statement, relocation trawling may occur under certain circumstances prior to dredging. This trawling will result in sea turtle takes, but these takes are not expected to be lethal due to the short duration of the tow times (15 to 30 minutes per tow). While relocating sea turtles may invoke a degree of stress on the animals, the level of stress should be minimized by an expedited and proper handling time. Additionally, the capture of a live turtle in a trawl is likely less harmful to the species as compared to a sea turtle being entrained in a dredge draghead. Thus, an unquantifiable number of live loggerhead and Kemp's ridley sea turtles are anticipated to be taken during any relocation trawling deemed necessary during dredging in both channels.

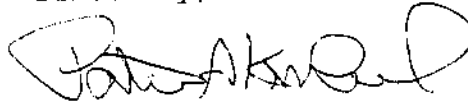
The distribution of shortnose sturgeon in Virginia waters is relatively unknown and the furthest recorded capture of shortnose sturgeon is in the mouth of the York River. While NMFS must employ a conservative approach to management and consider the species to be in the area, it is difficult to determine the abundance of this species in the action area and how the proposed project will impact shortnose sturgeon. Due to the lack of information about distribution in Virginia waters and the low likelihood that the dredge activities will interact with shortnose sturgeon, no incidental take will be designated for shortnose sturgeon at this time. No incidental take of any listed marine mammal is anticipated for this project.

The NMFS expects ACOE to implement the reasonable and prudent measures and terms and conditions as outlined in the ITS. The measures of the ITS are non-discretionary and must be undertaken by ACOE for the incidental take exemption to apply. For example, if hopper dredging is conducted from April 1 through November 30, dredges must have trained NMFS-approved observers on board, be equipped with rigid deflector dragheads, and follow designated equipment specifications.

This biological opinion concludes consultation for the dredging projects in the Thimble Shoal and Atlantic Ocean Channels. Reinitiation of this consultation is required if: (1) the amount or extent of taking specified in the ITS is exceeded; (2) new information reveals effects of these actions that may affect listed species or critical habitat in a manner or to an extent not previously considered; (3) project activities are subsequently modified in a manner that causes an effect to the listed species that was not considered in this biological opinion; or (4) a new species is listed or critical habitat designated that may be affected by the identified actions. As identified in the biological opinion, NMFS Northeast Regional staff should be contacted immediately should an interaction with a sea turtle occur.

For further information regarding any consultation requirements, please contact Mary Colligan, Assistant Regional Administrator for Protected Resources, NMFS Northeast Regional Office, at (978) 281-9116. I look forward to continued cooperation with ACOE during future Section 7 consultations.

Sincerely,



Patricia A. Kurkul  
Regional Administrator

Enclosure

cc: ACOE - Seltzer, Waring  
F/NER3 - Colligan  
F/NER-OXF - Nichols  
F/PR - Williams  
GCNE - Williams

File Code: 1514-05 (A) ACOE - Thimble Shoal/Atlantic Ocean Channels

**NATIONAL MARINE FISHERIES SERVICE**  
**ENDANGERED SPECIES ACT SECTION 7 CONSULTATION**  
**BIOLOGICAL OPINION**

**Agency:** Army Corps of Engineers, Norfolk District

**Activity:** Consultation on Dredging in the Thimble Shoal Federal Navigation Channel and Atlantic Ocean Channel

**Conducted by:** National Marine Fisheries Service  
Northeast Regional Office

**Date Issued:** April 25, 2002

**Approved by:** [Signature]

This constitutes the National Marine Fisheries Service's (NMFS) biological opinion on the effects of the Army Corps of Engineers (ACOE) Norfolk District's dredging projects in Thimble Shoal Channel and Atlantic Ocean Channel on threatened and endangered species in accordance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 U.S.C. 1531 et seq.). This biological opinion is based on information provided in the NMFS February 7, 2001 biological opinion on maintenance dredging in the Thimble Shoal Federal Navigation Channel, the September 6, 2001 biological opinion that assessed dredging operations in the Thimble Shoal Channel and the Atlantic Ocean Channel as related to the Virginia Beach Hurricane Protection Project, correspondence with Mr. Craig Seltzer and Ms. Betty Grey Waring, ACOE, and other sources of information. A complete administrative record of this consultation is on file at the NMFS Northeast Regional Office. Formal consultation was initiated on December 4, 2001.

**CONSULTATION HISTORY**

This biological opinion assesses the impacts of the dredging in the Thimble Shoal Channel and Atlantic Ocean Channel. This dredging includes the proposed deepening of the Thimble Shoal and Atlantic Ocean Channels and the anticipated maintenance dredging in the Thimble Shoal Channel and Atlantic Ocean Channel. The deepening of the Thimble Shoal and Atlantic Ocean Channels is proposed as part of the Norfolk Harbor and Channels 50-foot inbound channel project. The ACOE and NMFS have previously considered the impacts of Thimble Shoal maintenance dredging on threatened and endangered species, including marine mammals, sea turtles, and shortnose sturgeon. Previous consultations regarding maintenance dredging in the Thimble Shoal Channel (April 16, 1984; December 28, 1984; March 14, 1985; March 20, 1985; March 10, 1986) were concluded informally based on dredging schedules which were proposed during months when sea turtles were not likely to be present. Based on existing information, NMFS concluded that these dredging events were not likely to adversely affect listed species. Subsequently, the ACOE has conducted deepening and periodic maintenance dredging of the Thimble Shoal Channel during winter months



without incident. However, on December 15, 1998, the ACOE informed NMFS that the 1999 Thimble Shoal maintenance dredging was delayed due to funding and would be conducted from July to September, during a period when turtles may be migrating out of the Chesapeake Bay. On February 8, 1999, NMFS informed ACOE that this dredging was likely to adversely affect listed sea turtles in the lower Chesapeake Bay and formal consultation was necessary. The ACOE submitted the BA, Biological Assessment of Potential Impacts to Endangered and Threatened Species of Sea Turtles and Whales in the Vicinity of Thimble Shoal Channel, Chesapeake Bay, Virginia, to NMFS on April 14, 1999.

The 1999 maintenance dredging cycle actually began in December 1999. Again, due to funding constraints, dredging had to be curtailed in January 2000. Once the budget process was finalized, the ACOE resumed dredging in late July 2000 in order to remove all of the shoaled sediment for that dredging cycle.

After the effects of the action were analyzed but before the consultation process was complete, two loggerheads and one unidentified turtle were incidentally taken during maintenance dredging operations in Thimble Shoal Channel. One unidentified turtle was taken on July 24, 2000, one loggerhead was taken on August 22, 2000, and another loggerhead was recovered in three parts on August 25 and August 27, 2000. Since the final biological opinion had not yet been signed, it was imperative to re-assess the impacts of the dredging project in light of the take of these three turtles. On September 19, 2000, NMFS informed Betty Grey Waring of this situation in a phone conversation. NMFS issued the final biological opinion on maintenance dredging in the Thimble Shoal Federal Navigation Channel and associated ocean disposal on February 7, 2001. NMFS' biological opinion concluded that the maintenance dredging operations at Thimble Shoal Channel, in conjunction with ocean placement, may adversely affect, but are not likely to jeopardize, the continued existence of the right, humpback, or fin whale; loggerhead, leatherback, Kemp's ridley, green, or hawksbill sea turtle; or shortnose sturgeon.

On March 30, 2001, the ACOE informed NMFS that an upcoming hurricane protection project at Virginia Beach, Virginia would require dredging in the Thimble Shoal Channel, as well as in the Atlantic Ocean Channel. The borrow site was originally intended to be a portion of the Thimble Shoal Channel, but it was discovered that the Thimble Shoal Channel alone would not provide the required volume of sand. The ACOE stated that the required sand for the beach berm work would need to be supplemented by sand derived from several areas within the Atlantic Ocean Channel, lying approximately 3-4 miles east of the Thimble Shoal Channel. The project was to be conducted from the end of May through November 2001. It was determined that the proposed dredging in the Thimble Shoal Channel for the Virginia Beach project would fall within the scope of the February 7, 2001 biological opinion on maintenance dredging, as the location and impacts to the species could be considered the same. On May 30, 2001, NMFS informed the ACOE that the potential impacts of dredging in the Atlantic Ocean Channel

on listed species would be the same as those in Thimble Shoal Channel due to the nature of the dredging and location of the project. All of the reasonable and prudent measures and terms and conditions of the Incidental Take Statement in the February 2001 biological opinion applied equally to the dredging at the Atlantic Ocean Channel. The level of anticipated take authorized in the previous biological opinion did not change due to the additional dredging in the Atlantic Ocean Channel. A NMFS letter dated May 30, 2001, served as an amendment to the February 2001 biological opinion to cover dredging in the Atlantic Ocean channel for the 2001 Virginia Beach Hurricane Protection project.

On August 7 and 8, 2001, two loggerheads were taken during dredging in the Thimble Shoal Channel for the Virginia Beach project. After contacting NMFS, the ACOE coordinated with Glynn Banks of the ACOE Engineer Research and Development Center to ensure that Thimble Shoal dredging operations were employing appropriate sea turtle protection measures. Mr. Banks was able to observe the operations, ensure all reasonable and prudent measures were being implemented, and suggest additional measures to minimize potential sea turtle takes. On August 15, 2001, the ACOE sent NMFS a letter indicating as such and requesting reinitiation of consultation pursuant to Section 7 of the ESA. Due to the take of two loggerhead turtles in hopper dredging activities, the ACOE also requested that the incidental take limit for Thimble Shoal Channel be increased from four loggerhead sea turtles (as authorized in the Incidental Take Statement accompanying the February 7, 2001 biological opinion) to ten loggerhead sea turtles. In this letter, it was apparent that the dredging associated with the Virginia Beach project was much larger in scope than the Thimble Shoal Channel maintenance dredging on which NMFS previously consulted.

After receiving the ACOE's letter dated August 15, 2001, there were an additional seven incidents of sea turtles and/or turtle parts observed taken during Thimble Shoal Channel hopper dredging. Thus, from August 7 to August 28, there were a total of nine days in which turtles were taken. Five of the incidentally captured turtles were considered to be fresh dead turtles, and the remaining incidents involved decomposed turtle flippers and/or carapace parts. As the dredging associated with the Virginia Beach project was previously determined to fall within the scope of the February 2001 Thimble Shoal maintenance dredging biological opinion, and the anticipated incidental take level for this project was determined to be four loggerhead and one Kemp's ridley sea turtle, the incidental take level was exceeded.

In a letter dated August 30, 2001, NMFS concurred with ACOE's request to reinitiate consultation on dredging in Thimble Shoal Channel and Atlantic Ocean Channel as related to the Virginia Beach project. The September 6, 2001 biological opinion assessed dredging in the Atlantic Ocean Channel and Thimble Shoal Channel (up to authorized depths of 55 feet) to acquire an additional 2.7 million cubic yards of sand for the Virginia Beach Hurricane Protection project. The NMFS' biological opinion again concluded that the dredging operations at Thimble Shoal Channel and Atlantic Ocean Channel, as related to the Virginia Beach

Hurricane Protection project, may adversely affect, but are not likely to jeopardize, the continued existence of the threatened and endangered species mentioned previously. Relocation trawling was included in the biological opinion as a term and condition of the reasonable and prudent measures to minimize impacts of incidental take of sea turtles. Relocation trawling is performed prior to hopper dredging in order to minimize the number of turtles taken in hopper dredges by displacing sea turtles that may be in the dredging channel. As of October 4, 2001, 9 loggerhead turtles and 3 Kemp's ridleys were captured and relocated during trawling operations.

On September 26, 2001, a decomposed piece of an unknown turtle's plastron was found in the overflow screening basket, and on October 23, a carapace piece from an unknown species of turtle was found in the overflow screening basket. A piece of Kemp's ridley carapace was recovered from the inflow screening basket on November 4. On November 11, two separate incidents were documented at different times, including a portion of a flipper and two ribs without attached tissue from an unknown species of turtle, and a portion of the plastron (with no tissue) from an unknown species of turtle. On November 20, two carapace fragments and associated tissue from a fresh loggerhead were taken. These takes resulted in a total of 15 incidents when turtles and/or turtle parts were taken in association with dredging in Thimble Shoal Channel.

On December 4, 2001, the ACOE informed NMFS that deepening of the Norfolk Harbor and Channels 50-foot inbound channel is necessary. This proposed project will require the removal of a total of up to 7.5 million cubic yards of material. Dredging of approximately 2.5 million cubic yards from the inner harbor channels will likely be performed using a hydraulic pipeline dredge, placing the dredge material in a confined upland site. Dredging in the outer harbor channels will require the removal of up to 5 million cubic yards of material from the Thimble Shoal Channel and the Atlantic Ocean Channel to depths of approximately 50-55 feet with the dredged material placement in the Dam Neck Ocean Site. The Virginia Beach Hurricane Protection Project removed only beach quality sand from the two channels and did not remove all the shoaled areas. Therefore, there is an additional quantity of material that needs to be dredged in order to attain authorized project depths. The Norfolk Harbor and Channels project is authorized to 55 feet (65 feet in the Atlantic Ocean Channel). The project is proposed to begin in June 2002 and construction of the entire project is estimated to take as long as four years to complete. The existing biological opinion for Thimble Shoal Channel does not address deepening activities or dredging in the Atlantic Ocean Channel. However, an amendment was issued on March 30, 2001 which stated that the potential impacts of dredging in the Atlantic Ocean Channel on listed species are similar to those expected in Thimble Shoal Channel. The Virginia Beach Hurricane Protection Project biological opinion does not cover maintenance dredging, and the time frame for the completion of the project was one to two calendar years. Therefore, as a result of conversations between ACOE and NMFS, it was determined that a single biological opinion was needed to address all

dredging activities (both deepening and maintenance) in the Thimble Shoal and Atlantic Ocean Channels. In a letter dated January 4, 2001, NMFS responded to ACOE's request for reinitiation and advised the ACOE that no irreversible or irretrievable commitment of resources should be made that would prevent the NMFS from proposing or implementing any reasonable and prudent alternatives to avoid jeopardizing endangered or threatened species.

#### **DESCRIPTION OF THE PROPOSED ACTION**

The ACOE proposes to deepen the Norfolk Harbor and Channels 50-foot inbound Channel with the related removal of up to 7.5 million cubic yards from the Inner Harbor, Thimble Shoal, and Atlantic Ocean Channels; perform maintenance dredging of the Thimble Shoal Channel with up to two million cubic yards removed in any given year; and perform future maintenance dredging of the Atlantic Ocean Channel with up to one million cubic yards removed in any given year. Dredged material for both the maintenance and deepening projects will be placed at the Dam Neck Ocean Site. If warranted by ACOE, beach quality sand dredged from the Channels may be deposited as part of a beach renourishment activity.

##### *Deepening of Norfolk Harbor and Channels*

Dredging of the Norfolk Harbor and Channels 50-foot inbound project (inner harbor channels) will likely be performed using a hydraulic pipeline dredge. The dredged material will be placed at the Craney Island Dredged Material Management Area. The NMFS has previously determined that the use of mechanical and hydraulic dredging equipment other than hopper dredges is not expected to result in direct or indirect effects to sea turtles or marine mammals. Shortnose sturgeon are not likely to be present in the action area. While they have been previously taken in hydraulic dredging, due to the location of the proposed project, shortnose sturgeon are unlikely to be adversely affected by the deepening project. As such, the deepening of the inner harbor channels will not adversely affect any listed species in the action area, and this portion of the proposed project will not be further assessed.

The proposed deepening project for the Thimble Shoal and Atlantic Ocean Channels (outer harbor channels) is similar to the Virginia Beach Hurricane Protection project covered in the NMFS September 2001 biological opinion in that dredging will take place within the boundaries of the authorized Thimble Shoal and Atlantic Ocean Channels to similar depths (50-55 feet) previously used to obtain sand for Virginia Beach. However, the Virginia Beach project only removed beach quality sand from these channels and did not remove all of the shoaled areas. Therefore, an additional 5 million cubic yards will need to be removed to deepen these inbound channels to an interim depth of 50 plus feet.

##### *Maintenance Dredging*

Maintenance dredging of the Thimble Shoal and Atlantic Ocean Channels will occur approximately every two years. Whenever possible, dredging

will be conducted during winter months to avoid interactions with sea turtles. However, due to unforeseen circumstances and the potential delays in the federal budget process, dredging may need to be conducted during the warmer months when sea turtles are present in Virginia waters. This biological opinion addresses the impacts of dredging during this April 1 to November 30 period on listed species. Dredging during the remainder of the year is not likely to adversely affect turtles.

As engineered, the Thimble Shoal channel is 55 feet deep, 1,000 feet wide, and 13.4 miles long. During maintenance dredging, material will only be removed from discrete areas that have shoaled within the channel. Therefore, the amount of material to be removed from the channel varies for each dredging cycle.

The Atlantic Ocean Channel is an authorized Federal navigation channel as part of the Norfolk Harbor and Channels, Virginia and is located 3-4 miles east of the Thimble Shoal Channel. This channel is maintained at a depth of 55 feet, is 1,300 feet wide, and 11 miles long. It has not required dredging to date because the depths are adequate for current navigation purposes.

The type of dredge that will be used for both the deepening operations and the maintenance of the Thimble Shoal and Atlantic Ocean Channels is a hopper dredge. The ACOE has indicated that this type of dredge was chosen due to its ability to operate in strong currents and for maneuvering in rough seas. Speed during dredging will range from 1-7 knots.

The ACOE will require its contractor to comply with the Endangered Species Protection protocol, which has been developed in consultation with NMFS for use during dredging. This protocol is attached in Appendix B and summarized below:

- Whenever possible, dredging will be confined to the winter months.
- Contractor will develop a written operational plan to minimize turtle takes and whale collisions.
- Contractor will inform all dredge personnel of the possible presence of endangered species. A bridge watch will be conducted for whales at all times and for sea turtles from April 1 - November 30. Action will be taken to avoid collisions.
- NMFS-approved observers will be on board when dredging occurs during the April 1 - November 30 period. Observers will work a total of 12 hours per day in shifts of 6 hours on, 6 hours off, resulting in 50% observer coverage during the project period. Observer findings will be recorded after each shift and reported weekly. Takes of endangered species will be reported immediately. A final report on the project will be submitted within 20 days of the end of dredging.
- Hopper dredge dragheads will be equipped with a rigid sea turtle deflector approved by the ACOE.

- Screening baskets with openings of 4 inches or less will be installed over each hopper inflow. Screens and lighting will be approved by the ACOE Contracting officer for use on hopper dredges during endangered species watches.
- Control of suction in the various phases of hopper dredge operations will be conducted in a manner designed to minimize potential for entrainment of listed species at all times.

#### *Disposal of Dredged Material*

The dredge spoils will typically be deposited at the Dam Neck site, which was designated by the EPA on March 31, 1988 (53 FR 10382). This disposal site covers 9 square miles and has an average depth of 40 feet. The EPA has determined that the dredged material from the channels is suitable for ocean disposal at the Dam Neck site. If warranted by the ACOE, beach quality sand from the dredging operations in Thimble Shoal and Atlantic Ocean Channels may be used for beach renourishment.

A 300-foot hopper dredge will typically transport dredged material to the Dam Neck site. During transport, this dredge will be traveling at approximately 8 knots. The amount of material removed during maintenance dredging in the Thimble Shoal Channel and Atlantic Ocean Channel will be up to 2,000,000 cubic yards and 1,000,000 cubic yards, respectively. During the deepening project, the amount of material removed from the outer harbor channels will be up to 5,000,000 cubic yards. The dredge will make approximately 1650 round trips to the disposal site for this project. This number is contingent upon the size of the dredge and the total amount of material dredged. Future maintenance dredging may involve between 300 and 800 round trips, depending on the amount of shoaled sediment and the dredging in a particular maintenance cycle. Trips will cover approximately 4-25 miles each way from the channels to the disposal site.

#### *Action Area*

The action area for this consultation includes several areas near the mouth of the Chesapeake Bay. Specific project actions will take place in the Thimble Shoal Federal Navigation Channel (Appendix A), the Atlantic Ocean Channel, the Dam Neck Disposal Site, and the waters between and immediately adjacent to these areas.

#### **STATUS OF AFFECTED SPECIES**

NMFS has determined that the action being considered in this biological opinion may affect the following species provided protection under the ESA.

##### ***Cetaceans***

Right whale ( <i>Eubalaena glacialis</i> )	Endangered
Humpback whale ( <i>Megaptera novaeangliae</i> )	Endangered
Fin whale ( <i>Balaenoptera physalus</i> )	Endangered

##### ***Sea Turtles***

Loggerhead sea turtle ( <i>Caretta caretta</i> )	Threatened
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Leatherback sea turtle ( <i>Dermochelys coriacea</i> )	Endangered
Kemp's ridley sea turtle ( <i>Lepidochelys kempi</i> )	Endangered
Green sea turtle ( <i>Chelonia mydas</i> <sup>1</sup> )	Endangered/Threatened
Hawksbill sea turtle ( <i>Eretmochelys imbricata</i> )	Endangered

#### **Fish**

Shortnose sturgeon ( <i>Acipenser brevirostrum</i> )	Endangered
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This section will focus on the status of the various species within the action area, summarizing information necessary to establish the environmental baseline and to assess the effects of the proposed action. Background information on the range-wide status of these species and a description of critical habitat can be found in a number of published documents including recent shortnose sturgeon (NMFS 1996) and sea turtle (NMFS and USFWS 1995, USFWS 1997) status reviews, Recovery Plans for the humpback whale (NMFS 1991a), right whale (NMFS 1991b), fin and sei whale (NMFS 1998a), shortnose sturgeon (NMFS 1998b), loggerhead sea turtle (NMFS and USFWS 1991) and leatherback sea turtle (NMFS and USFWS 1992), and the 2000 Marine Mammal Stock Assessment Report (Waring et al. 2001).

#### **Right Whale**

Right whales are present in the Northeast Shelf Ecosystem throughout most months of the year, but are most abundant in nearshore waters between February and June, with concentrations observed in the critical habitat areas. On June 3, 1994, NMFS designated three areas off the East Coast as right whale critical habitat (59 FR 28793); none of these areas overlap the action area for this consultation. However, the species uses mid-Atlantic waters as a migratory pathway from the winter calving grounds off the coast of Florida to spring and summer nursery/feeding areas in the Gulf of Maine.

In the last several years, significant efforts have been made to determine the current status and trends of this very small population and to make valid recommendations on recovery requirements. Based on data from 1987 through 1992, Knowlton et al. (1994) concluded that the right whale population was growing at a net annual rate of 2.5 percent (CV=0.12). However, new information and modeling suggests that the population is not growing and may be declining. Using data on reproduction and survival through 1996, Caswell et al. (1999) determined that the right whale population was declining at a rate of 2.4 percent per year. One model suggested that the right whale population has undergone a five-fold increase in mortality rate in less than one generation. According to Caswell et al. (1999), if the mortality rate as of 1996 does not decrease and the population performance does not improve, extinction could occur within 100 years

<sup>1</sup>

Pursuant to NMFS regulations at 50 CFR 227.71, the prohibitions of Section 9 of the Endangered Species Act apply to all green turtles, whether endangered or threatened.

and would be certain within 400 years. The mean time to extinction was calculated to be 191 years.

Recognizing the precarious status of the right whale, the continued threats in its coastal habitat throughout its range, and the uncertainty surrounding the attempts to characterize population trends, the International Whaling Commission (IWC) held a special meeting of its Scientific Committee in March 1998 to conduct a comprehensive assessment of right whales worldwide. At the 1998 IWC workshop, an inter-sessional Steering Group was established to review an early draft of Caswell et al. (1999) and several on-going assessment efforts to identify the best and most current scientific information on population status and trends. The IWC Scientific Committee met in May 1999 to discuss the Steering Group's report. Committee members noted that there were several potential negative biases in Caswell et al. (1999) but agreed that the results of the study should be considered in management actions. For the purposes of this biological opinion, NMFS will continue to adopt the risk averse assumption that the northern right whale population is declining.

#### *Anthropogenic impacts*

The major known sources of anthropogenic mortality and injury of right whales include entanglement in commercial fishing gear and ship strikes. Right whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities.

Based on photographs of catalogued animals from 1959 and 1989, Kraus (1990) estimated that 57% of right whales exhibited scars from entanglement and 7% from ship strikes (propeller injuries). Using data from 1935 through 1995, Hamilton et al. (1998) found that an estimated 61.6% of right whales exhibit injuries caused by entanglement, and 6.4% exhibit signs of injury from vessel strikes. In addition, several animals have apparently been entangled on more than one occasion. Some right whales that have been entangled were subsequently involved in ship strikes. These scarring percentages are primarily based on sightings of free-swimming animals that initially survive the impact, which resulted in the scar. Because some animals may drown or be killed immediately, the actual number of interactions may be slightly higher.

Many of the reports of mortality cannot be attributed to a particular source. The following injury/mortality events are those reported from 1996 to the present for which source was determined. These numbers should be viewed as absolute minimum numbers. The total number of mortalities and injuries cannot be estimated but is believed to be higher since it is unlikely that all carcasses will be observed. One right whale mortality resulting from a ship strike was recorded in 1996, and another whale that had become entangled in late 1995 was killed by a ship in 1996. In 1997, one ship strike mortality was reported from the Bay of Fundy, and eight entanglements were reported. Two adult female right whales were discovered in a weir off Grand



Manan Island in the Bay of Fundy in July 1998, and were released two days later. Also in July 1998, gear was removed from around the tail stock of a right whale, which was originally seen entangled in the Bay of Fundy in August 1997. This same whale, apparently debilitated from the earlier entanglement, became entangled in lobster pot gear twice in one week in Cape Cod Bay in September 1998. On August 15, 1998, a right whale was observed entangled in the Gulf of St. Lawrence; the animal apparently freed itself of most of the gear, but some gear may remain. Two right whale mortalities were documented for 1999; one attributed to a ship strike, and the second to a fishing gear entanglement. The first animal was found floating near Truro, Massachusetts, and was towed to the beach for necropsy. Evidence of pre-mortem ship strike injuries and disease were found, and scientists have determined that the whale died from complications of these injuries. In addition to these known mortalities, there were at least five new right whale entanglements in 1999. In 2000, a total of five confirmed North Atlantic right whale entanglements were sighted in the Gulf of Maine (both in US and Canada). One whale was completely disentangled, one whale was not a candidate for rescue due to its minor entanglement and one whale remained entangled and required further assessment. The disentangling team was unable to respond to two entangled North Atlantic right whales. One was an unidentified North Atlantic right whale, sighted and lost by aerial survey in the Bay of Fundy, Canada. The other was sighted by aerial survey too far offshore on two occasions. It was determined that this whale had a minor entanglement.

A right whale calf is known to have died in late-January 2001, though the reasons for its death are unclear, as stranding personnel were unable to recover the carcass. A second confirmed right whale death in 2001 was a young male found washed up on the beach near Assateague Island, VA. A final report of the subsequent examination has not yet been released but several deep cuts consistent with injuries resulting from a boat's propeller were on the carcass. According to field reports, there was no indication that entanglement in fishing gear contributed to the death. On June 8, 2001, aircraft survey observers sighted a northern right whale (#1102) severely entangled in fishing gear about 80 miles off Massachusetts. The entangled whale, an adult male, had a single polypropylene line, estimated at 3/4 inch, wrapped over its upper jaw. The line was cinched tight and was cutting into the tissue causing an infected wound. Several attempts were made to disentangle the whale. However, due to the challenging conditions, rescue efforts were unsuccessful, and on September 20, 2001, the satellite telemetry signal was lost. Despite the fact that the rescue efforts proved unsuccessful, significant information on right whales and procedures for safely sedating a large whale was obtained and can be used in future disentangling endeavors.

#### **Humpback Whale**

Humpback whales calve and mate in the Caribbean and migrate to feeding areas in the northwestern Atlantic during the summer months. Six separate feeding areas are utilized in northern waters after their return (Waring et al. 1999). They feed on a number of species of

small schooling fishes, particularly sand lance and Atlantic herring, by targeting fish schools and filtering large amounts of water for the associated prey. Humpback whales have also been observed feeding on krill (Wynne and Schwartz 1999).

Humpback whales use the mid-Atlantic as a migratory pathway, but it may also be an important feeding area for juveniles. Since 1989, observations of juvenile humpbacks in the mid-Atlantic have been increasing during the winter months, peaking from January through March (Swingle et al. 1993). Biologists theorize that non-reproductive animals may be establishing a winter feeding range in the mid-Atlantic since they are not participating in reproductive behavior in the Caribbean.

New information has become available on the status and trends of the humpback whale population in the North Atlantic. Although current and maximum net productivity rates are unknown at this time, the population is apparently increasing. It has not yet been determined whether this increase is uniform across all six feeding stocks (Waring et al. 1999). The rate of increase has been estimated at 9.0% (CV=0.25) by Katona and Beard (1990), while a 6.5% rate was reported for the Gulf of Maine by Barlow and Clapham (1997) using data through 1991. The rate reported by Barlow and Clapham (1997) may roughly approximate the rate of increase for the portion of the population within the action area. The best estimate of abundance for the North Atlantic humpback whale population is 10,600 animals (CV=0.067; Smith et al. 1999) while the minimum population estimate used for NMFS management purposes is 10,019 animals (CV=0.067, Waring et al. 1999).

#### *Anthropogenic impacts*

The major known sources of anthropogenic mortality and injury of humpback whales include entanglement in commercial fishing gear and ship strikes. Humpback whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities including the operation of commercial fisheries. Based on photographs of the caudal peduncle of humpback whales, Robbins and Mattila (1999) estimated that at least 48% -- and possibly as many as 78% -- of animals in the Gulf of Maine exhibit scarring caused by entanglement. Several animals have apparently been entangled on more than one occasion. These estimates are based on sightings of free-swimming animals that initially survive the scarring encounter. Because some animals may drown immediately, the actual number of interactions may be slightly higher.

Many of the reports of mortality cannot be attributed to a particular impact source. The following injury/mortality events are those reported from 1996 to the present for which impact source was determined. These numbers should be viewed as absolute minimum numbers. The total number of mortalities and injuries cannot be estimated but it is believed to be higher since it is unlikely that all carcasses will be observed. In 1996, three humpback whales were killed in collisions with vessels and at least five were seriously

injured by entanglement. Three confirmed humpback whale entanglements were reported in 1997. For 1998, 14 confirmed humpback whale entanglements resulting in injury (n=13) or mortality (n=1) were reported. One injury from a vessel interaction was reported in 1998; the whale was seen several times after the injury, and exhibited some healing. A total of eight whales were observed entangled in 1999. In 2000, a total of eleven confirmed reports of entangled humpback whales were reported. Three were not located as no one was available to respond. Two were too far from shore for response. Two were at large and not assessed. One was at large and was assessed as a not life threatening entanglement. Two were found and, although disentanglement was not possible, the animals were later seen free of gear. One was successfully disentangled by the Network.

Preliminary data for 2001, indicate that there were a total of six reports of entangled humpback whales - four in the Mid-Atlantic and two in the Northeast. On February 12, a juvenile humpback was sighted entangled in gillnet gear near Cape Hatteras, NC. However, after being caught in the gear for about an hour, the whale was able to free itself. On April 8, two humpbacks were reported stranded in South Carolina, both had evidence of previous entanglements with gear. On April 9, a dead juvenile humpback was found floating in coastal gillnet gear off Virginia Beach, VA. A humpback whale was reported in Southwest Stellwagen Bank on July 25, 2001, with a minor entanglement, which the team assessed was not life threatening and, therefore, disentanglement was not attempted, but the team will continue to monitor the whale. Finally, on August 15, 2001, another entangled humpback was sighted in Southwest Stellwagen Bank, which the disentanglement team responded to and completely freed.

#### **Fin Whale**

The fin whale is ubiquitous in the North Atlantic and occurs from the Gulf of Mexico and Mediterranean Sea northward to the edges of the arctic ice pack (NMFS 1998a). Fin whales are found throughout the action area for this consultation in most months of the year. The overall pattern of fin whale movement is complex, consisting of a less obvious north-south pattern of migration than that of right and humpback whales. Based on acoustic recordings from hydrophone arrays, however, Clark (1995) reported a general southward flow pattern of fin whales in the fall from the Labrador/Newfoundland region, south past Bermuda, and into the West Indies. The overall distribution may be based on prey availability and this species preys opportunistically on both invertebrates and fish (Watkins et al. 1984). As with humpback whales, they feed by filtering large volumes of water for the associated prey. Fin whales are larger and faster than humpback and right whales and are less concentrated in near-shore environments.

Insufficient data are available to determine status and trends of the Western North Atlantic stock of the fin whale population (Waring et al. 1999). Hain et al. (1992) estimated that about 5,000 fin whales inhabit the northeastern United States continental shelf waters. Shipboard surveys of the northern Gulf of Maine and lower Bay of Fundy provided an estimate of 2,200 (CV=0.24) fin whales, from which the

current minimum population estimate of 1,803 animals was derived (Waring et al. 1999).

#### *Anthropogenic impacts*

The major known sources of anthropogenic mortality and injury of fin whales include entanglement in commercial fishing gear and ship strikes. Fin whales may also be adversely affected by habitat degradation, habitat exclusion, acoustic trauma, harassment, or reduction in prey resources due to trophic effects resulting from a variety of activities.

Many of the reports of mortality cannot be attributed to a particular source. The following injury/mortality events are those reported from 1996 to the present for which source was determined. These numbers should be viewed as absolute minimum numbers; the total number of mortalities and injuries cannot be estimated but is believed to be higher. One mortality due to a ship strike and one entanglement report were received in 1996. Five confirmed reports of entangled fin whales were received by NMFS in 1997. In 1998, one ship strike mortality and one entanglement mortality were reported. A total of three fin whales were observed entangled in 1999. Data for 2000 indicate two fin whale mortalities, one of which was an apparent ship strike. There were no reports of entangled fin whales in 2000. Two dead fin whales were reported in 2001, both of which were possibly involved in ship strikes (one had a broken jaw and the other displayed bruising and broken bones). Also in 2001, one fin whale was reported with a minor entanglement, which was not serious, and the whale was expected to free itself.

#### **Loggerhead Sea Turtle**

Loggerhead sea turtles occur throughout the temperate and tropical regions of the Atlantic, Pacific, and Indian Oceans in a wide range of habitats. These include open ocean, continental shelves, bays, lagoons, and estuaries (NMFS and USFWS, 1995). It is the most abundant species of sea turtle in U.S. waters, commonly occurring throughout the inner continental shelf from Florida through Cape Cod, Massachusetts. NMFS Northeast Fisheries Science Center survey data (1999) has found that loggerheads may occur as far north as Nova Scotia when oceanographic and prey conditions are favorable. The loggerhead sea turtle was listed as threatened under the ESA on July 28, 1978, but is considered endangered by the World Conservation Union (IUCN).

Loggerhead sea turtles are generally grouped by their nesting locations. Nesting is concentrated in the north and south temperate zones and subtropics. Loggerheads generally avoid nesting in tropical areas of Central America, northern South America, and the Old World (Magnuson et al. 1990). The largest known nesting aggregations of loggerhead sea turtles occurs on Masirah and Kuria Muria Islands in Oman (Ross and Barwani 1982). However, the status of the Oman nesting beaches has not been evaluated recently, and their location in a part of the world that is vulnerable to extremely disruptive events (e.g. political upheavals, wars, and catastrophic oil spills) is cause for

considerable concern (Meylan et al. 1995). The southeastern U.S. nesting aggregation is the second largest and represents about 35 percent of the nests of this species. From a global perspective, this U.S. nesting aggregation is, therefore, critical to the survival of this species.

In the western Atlantic, most loggerhead sea turtles nest from North Carolina to Florida and along the gulf coast of Florida. In 1996, the Turtle Expert Working Group (TEWG) met on several occasions and produced a report assessing the status of the loggerhead sea turtle population in the western North Atlantic. Based on analysis of mitochondrial DNA, which the turtle inherits from its mother, the TEWG theorized that nesting assemblages represent distinct genetic entities, and that there are at least four loggerhead subpopulations in the western North Atlantic separated at the nesting beach (TEWG 1998, 2000). A fifth subpopulation was identified in NMFS SEFSC 2001. The subpopulations are divided geographically as follows: (1) a northern nesting subpopulation, occurring from North Carolina to northeast Florida, about 29° N (approximately 7,500 nests in 1998); (2) a south Florida nesting subpopulation, occurring from 29° N on the east coast to Sarasota on the west coast (approximately 83,400 nests in 1998); (3) a Florida panhandle nesting subpopulation, occurring at Eglin Air Force Base and the beaches near Panama City, Florida (approximately 1,200 nests in 1998); (4) a Yucatán nesting subpopulation, occurring on the eastern Yucatán Peninsula, Mexico (Márquez 1990; approximately 1,000 nests in 1998); and (5) a Dry Tortugas nesting subpopulation, occurring in the islands of the Dry Tortugas, near Key West, Florida (approximately 200 nests per year). Natal homing to the nesting beach is believed to provide the genetic barrier between these nesting aggregations, preventing recolonization from turtles from other nesting beaches. In addition, recent fine-scale analysis of mtDNA work from Florida rookeries indicate that population separations begin to appear between nesting beaches separated by more than 50-100 km of coastline that does not host nesting (Francisco et al. 1999) and tagging studies are consistent with this result (Richardson 1982, Ehrhart 1979, LeBuff 1990, CMTTP: in NMFS SEFSC 2001). Nest site relocations greater than 100 km occur, but are rare (Ehrhart 1979; LeBuff 1974, 1990; CMTTP; Bjorndal et al. 1983: in NMFS SEFSC 2001).

Although NMFS has not formally recognized subpopulations of loggerhead sea turtles under the ESA, based on the most recent reviews of the best scientific and commercial data on the population genetics of loggerhead sea turtles and analyses of their population trends (TEWG, 1998; TEWG 2000), NMFS treats the loggerhead turtle nesting aggregations as nesting subpopulations whose survival and recovery is critical to the survival and recovery of the species. Any action that appreciably reduced the likelihood that one or more of these nesting aggregations would survive and recover would appreciably reduce the species' likelihood of survival and recovery in the wild. Consequently, this biological opinion will treat the five nesting aggregations of loggerhead sea turtles as subpopulations (which occur in the action area) for the purposes of this analysis.

The loggerhead sea turtles in the action area of this consultation likely represent turtles that have hatched from any of the five western Atlantic nesting sites, but are probably composed primarily of turtles that hatched from the northern nesting group and the south Florida nesting group. Although genetic studies of benthic immature loggerheads on the foraging grounds have shown the foraging areas to be comprised of a mix of individuals from different nesting areas, there appears to be a preponderance of individuals from a particular nesting area in some foraging locations. For example, although the northern nesting group (North Carolina to northeast Florida) produces only about 9 percent of the loggerhead nests, loggerheads from this nesting area comprise between 25 and 59 percent of the loggerhead sea turtles found in foraging areas from the northeastern U.S. to Georgia (NMFS SEFSC 2001; Bass et al., 1998; Norrgard, 1995; Rankin-Baransky, 1997; Sears 1994, Sears et al., 1995). Loggerheads that forage from Chesapeake Bay southward to Georgia are nearly equally divided in origin between south Florida and the northern nesting group (TEWG, 1998). In the Carolinas, the northern subpopulation is estimated to make up from 25 to 28 percent of the loggerheads (NMFS SEFSC 2001; Bass et al. 1998). About 10 percent of the loggerhead sea turtles in foraging areas off the Atlantic coast of central Florida are from the northern subpopulation (Witzell, in prep). In the Gulf of Mexico, most of the loggerhead sea turtles in foraging areas will be from the South Florida subpopulation, although the northern subpopulation may represent about 10 percent of the loggerhead sea turtles in the Gulf (Bass, pers. comm.).

Similar mixing trends have been found for loggerheads in pelagic waters. In the Mediterranean Sea, about 45 - 47 percent of the pelagic loggerheads can be traced to the South Florida subpopulation and about 2 percent are from the northern subpopulation, while only about 51 percent originated from Mediterranean nesting beaches (Laurent et al., 1998). In the vicinity of the Azores and Madeira Archipelagoes, about 19 percent of the pelagic loggerheads are from the northern subpopulation, about 71 percent are from the South Florida subpopulation, and about 11 percent are from the Yucatán subpopulation (Bolten et al., 1998).

Loggerhead sea turtles originating from the western Atlantic nesting aggregations are believed to lead a pelagic existence in the North Atlantic Gyre for as long as 7-12 years before settling into benthic environments. Turtles in this life history stage are called "pelagic immatures" and are best known from the eastern Atlantic near the Azores and Madeira and have been reported from the Mediterranean as well as the eastern Caribbean (Bjorndal et al., in press). Stranding records indicate that when pelagic immature loggerheads reach 40-60 cm straight-line carapace length (SCL) they move to coastal inshore and nearshore waters of the continental shelf throughout the U.S. Atlantic and Gulf of Mexico. However, recent studies have suggested that not all loggerhead sea turtles follow the model of circumnavigating the North Atlantic Gyre as pelagic immatures, followed by permanent settlement into benthic environments. Some may not totally

circumnavigate the north Atlantic before moving to benthic habitats, while others may either remain in the pelagic habitat longer than hypothesized or move back and forth between pelagic and coastal habitats (Witzell in prep.).

Benthic immatures have been found from Cape Cod, Massachusetts, to southern Texas, and occasionally strand on beaches in northeastern Mexico (R. Márquez-M., pers. comm.). Large benthic immature loggerheads (70-91 cm) represent a larger proportion of the strandings and in-water captures (Schroeder et al., 1998) along the south and western coasts of Florida as compared with the rest of the coast, but it is not known whether the larger animals are actually more abundant in these areas or just more abundant within the area relative to the smaller turtles. Given an estimated age at maturity of 17-35 years (Frazer and Ehrhart 1985; B. Schroeder, pers. comm.), the benthic immature stage must be at least 10-25 years long. As discussed in the beginning of this section, adult loggerheads nest primarily from North Carolina southward to Florida with additional nesting assemblages in the Florida Panhandle and on the Yucatán Peninsula. Non-nesting, adult female loggerheads are reported throughout the U.S. and Caribbean Sea; however, little is known about the distribution of adult males who are seasonally abundant near nesting beaches during the nesting season. NMFS SEFSC (2001) analyses conclude that juvenile stages have the highest elasticity and maintaining or decreasing current sources of mortality in those stages will have the greatest impact on maintaining or increasing population growth rates.

Aerial surveys suggest that loggerheads (benthic immatures and adults) in U.S. waters are distributed in the following proportions: 54% in the southeast U.S. Atlantic, 29% in the northeast U.S. Atlantic, 12% in the eastern Gulf of Mexico, and 5% in the western Gulf of Mexico (TEWG 1998). Like other sea turtles, the movements of loggerheads are influenced by water temperature. Since they are limited by water temperatures, loggerhead sea turtles do not usually appear on the northern summer foraging grounds (e.g., in the action area) until June, but can be found in Virginia as early as April. The large majority leave the Gulf of Maine by mid-September but may remain in the Northeast and mid-Atlantic waters until as late as November or December (Epperly et al., 1995; Keinath 1993; Morreale 1999; Shoop and Kenney 1992). Aerial surveys of loggerhead turtles north of Cape Hatteras indicate that they are most common in waters from 22 to 49 m deep, although they range from the beach to waters beyond the continental shelf (Shoop and Kenney 1992). There is limited information regarding the activity of these offshore turtles. Loggerhead sea turtles are primarily benthic feeders, opportunistically foraging on crustaceans and mollusks (Wynne and Schwartz, 1999). Under certain conditions they may also scavenge fish, particularly if they are easy to catch (e.g., caught in nets; NMFS and USFWS, 1991).

Based on the data available, it is difficult to estimate the size of the loggerhead sea turtle population in the U.S. or its territorial waters. There is, however, general agreement that the number of

nesting females provides a useful index of the species' population size and stability at this life stage. Nesting data collected on index nesting beaches in the U.S. from 1989-1998 represent the best dataset available to index the population size of loggerhead sea turtles. However, an important caveat for population trends analysis based on nesting beach data is that this may reflect trends in adult nesting females, but it may not reflect overall population growth rates. Given this, between 1989 and 1998, the total number of nests laid along the U.S. Atlantic and Gulf coasts ranged from 53,014 to 92,182 annually, with a mean of 73,751. Since a female often lays multiple nests in any one season, the average adult female population of 44,780 was calculated using the equation  $[(\text{nests}/4.1) * 2.5]$ . These data provide an annual estimate of the number of nests laid per year while indirectly estimating both the number of females nesting in a particular year (based on an average of 4.1 nests per nesting female, Murphy and Hopkins (1984)) and of the number of adult females in the entire population (based on an average remigration interval of 2.5 years; Richardson et al., 1978)). On average, 90.7% of these nests were of the south Florida subpopulation, 8.5% were from the northern subpopulation, and 0.8% were from the Florida Panhandle nest sites. There is limited nesting throughout the Gulf of Mexico west of Florida, but it is not known to what subpopulation the turtles making these nests belong. Based on the above, there are only an estimated approximately 3,800 nesting females in the northern loggerhead subpopulation. The status of this northern population based on number of loggerhead nests, has been classified as stable or declining (TEWG 2000). Another consideration adding to the vulnerability of the northern subpopulation is that NMFS scientists estimate, using genetics data from Texas, South Carolina, and North Carolina in combination with juvenile sex ratios from those states, that the northern subpopulation produces 65% males, while the south Florida subpopulation is estimated to produce 80% females (NMFS SEFSC 2001, Part I).

Several published reports have presented the problems facing long-lived species that delay sexual maturity (Crouse et al., 1987, Crowder et al., 1994, Crouse 1999). In general, these reports concluded that animals that delay sexual maturity and reproduction must have high annual survival as juveniles through adults to ensure that enough juveniles survive to reproductive maturity and then reproduce enough times to maintain stable population sizes. This general rule applies to sea turtles, particularly loggerhead sea turtles, as the rule originated in studies of sea turtles (Crouse et al., 1987, Crowder et al., 1994, Crouse 1999). Crouse (1999) concluded that relatively small decreases in annual survival rates of both juvenile and adult loggerhead sea turtles will adversely affect large segments of the total loggerhead sea turtle population. The survival of hatchlings seems to have the least amount of influence on the survivorship of the species, but historically, the focus of sea turtle conservation has been involved with protecting the nesting beaches. While nesting beach protection and hatchling survival are important, recovery efforts and limited resources might be more effective by focusing on the protection of juvenile and adult sea turtles.



#### *Anthropogenic impacts*

The five major subpopulations of loggerhead sea turtles in the northwest Atlantic – northern, south Florida, Florida panhandle, Yucatán, and Dry Tortugas – are all subject to fluctuations in the number of young produced annually because of human-related activities as well as natural phenomena. Loggerhead sea turtles face numerous threats from natural causes. For example, there is a significant overlap between hurricane seasons in the Caribbean Sea and northwest Atlantic Ocean (June to November), and the loggerhead sea turtle nesting season (March to November). Sand accretion and rainfall that result from these storms as well as wave action can appreciably reduce hatchling success. In 1992, Hurricane Andrew affected turtle nests over a 90-mile length of coastal Florida; all of the eggs were destroyed by storm surges on beaches that were closest to the eye of this hurricane (Milton et al., 1992). On Fisher Island near Miami, Florida, 69 percent of the eggs did not hatch after Hurricane Andrew, probably because they were drowned by the storm surge. Nests from the northern nesting group were destroyed by hurricanes which made landfall in North Carolina in the mid to late 1990's. Other sources of natural mortality include cold stunning and biotoxin exposure.

The diversity of the sea turtle's life history leaves them susceptible to many human impacts, including impacts while they are on land, in the benthic environment, and in the pelagic environment. On their nesting beaches in the U.S., adult female loggerheads as well as hatchlings are threatened with beach erosion, armoring, and nourishment; artificial lighting; beach cleaning; increased human presence; recreational beach equipment; beach driving; coastal construction and fishing piers; exotic dune and beach vegetation; predation by species such as exotic fire ants, raccoons (*Procyon lotor*), armadillos (*Dasypus novemcinctus*), opossums (*Didelphus virginiana*); and poaching. Although sea turtle nesting beaches are protected along large expanses of the northwest Atlantic coast (in areas like Merrit Island, Archie Carr, and Hobe Sound National Wildlife Refuges), other areas along these coasts have limited or no protection and probably cause fluctuations in sea turtle nesting success. For example, Volusia County, Florida, allows motor vehicles to drive on sea turtle nesting beaches (the County has filed suit against the U.S. Fish and Wildlife Service to retain this right). Sea turtle nesting and hatching success on unprotected high density east Florida nesting beaches from Indian River to Broward County are affected by all of the above threats.

Loggerhead sea turtles are impacted by a completely different set of threats from human activities once they migrate to the ocean. Pelagic immature loggerhead sea turtles from these four subpopulations circumnavigate the North Atlantic over several years (Carr 1987, Bjørndal et al. 1994). During that period, they are exposed to a series of long-line fisheries that include the U.S. Atlantic tuna and swordfish longline fisheries, an Azorean long-line fleet, a Spanish long-line fleet, and various fleets in the Mediterranean Sea (Aguilar et al., 1995, Bolten et al., 1994, Crouse 1999). Observer records

indicate that an estimated 6,544 loggerheads were captured by the U.S. Atlantic tuna and swordfish longline fleet between 1992-1998, of which an estimated 43 were dead (Yeung et al. in prep.). Logbooks and observer records indicated that loggerheads readily ingest hooks (Witzell 1999).

In waters off the coastal U.S., loggerhead sea turtles are exposed to a suite of fisheries in Federal and State waters including trawl, purse seine, hook and line, gillnet, pound net, longline, and trap fisheries. For example, loggerhead sea turtles have been captured in fixed pound net gear in the Long Island Sound, in pound net gear and trawls in summer flounder and other finfish fisheries in the mid-Atlantic and Chesapeake Bay, and in gillnet fisheries (e.g., monkfish, spiny dogfish) in the mid-Atlantic and elsewhere. The take of sea turtles, including loggerheads, in shrimp fisheries off the Atlantic coast have been well documented. It has previously been observed that loggerhead turtle populations along the southeastern Atlantic coast declined where shrimp fishing was intense off the nesting beaches but, conversely, did not appear to be declining where nearshore shrimping effort was low or absent (Magnuson et al. 1990).

In addition to fishery interactions, loggerhead sea turtles also face other threats in the marine environment, including the following: oil and gas exploration, development, and transportation; marine pollution; underwater explosions; hopper dredging, offshore artificial lighting; power plant entrainment and/or impingement; entanglement in debris; ingestion of marine debris; marina and dock construction and operation; boat collisions; and poaching.

#### **Leatherback Sea Turtle**

The leatherback is the largest living turtle and ranges farther than any other sea turtle species, exhibiting broad thermal tolerances (NMFS and USFWS 1995). Leatherback turtles feed primarily on cnidarians (medusae, siphonophores) and tunicates (salps, pyrosomas) and are often found in association with jellyfish. These turtles are found throughout the action area of this consultation and, while predominantly pelagic, they occur annually in places such as Cape Cod Bay and Narragansett Bay during certain times of the year, particularly the fall.

Nest counts are the only reliable population information available for leatherback turtles. Recent declines have been seen in the number of leatherbacks nesting worldwide (NMFS and USFWS 1995). The 1995 status review notes that it is unclear whether this observation is due to natural fluctuations or whether the population is at serious risk. Globally, leatherback populations have been decimated worldwide. The population was estimated to number approximately 115,000 adult females in 1980 and only 34,500 by 1995 (Spotila et al. 1996). The decline can be attributed to many factors including fisheries as well as intense exploitation of the eggs (Ross, 1979). Spotila et al. (1996) record that adult mortality has also increased significantly, particularly as a result of driftnet and longline fisheries. The Pacific population appears to be in a critical state of decline, now

estimated to number less than 3,000 total adult and subadult animals (Spotila 2000). The status of the Atlantic population is less clear. In 1996, it was reported to be stable, at best (Spotila 1996), but numbers in the Western Atlantic at that writing were reported to be on the order of 18,800 nesting females. According to Spotila (pers. comm.), the Western Atlantic population currently numbers about 15,000 nesting females, whereas current estimates for the Caribbean (4,000) and the Eastern Atlantic (i.e., off Africa, numbering ~ 4,700) have remained consistent with numbers reported by Spotila et al. in 1996. With regard to repercussions of these observations for the U.S. leatherback populations in general, it is unknown whether they are stable, increasing, or declining, but it is certain that some nesting populations (e.g., St. John and St. Thomas, U.S. Virgin Islands) have been extirpated.

#### *Anthropogenic impacts*

Anthropogenic impacts to the leatherback population are similar to those discussed above for the loggerhead sea turtle. At a workshop held in the Northeast in 1998 to develop a management plan for leatherbacks, experts expressed the opinion that incidental takes in fisheries were likely higher than is being reported. Two to three leatherbacks are reported entangled in the buoy lines of lobster pot gear every year. Anecdotal accounts by fishermen suggest that they have many more encounters than are reported. Entanglement in other pot gear set for other species of shellfish and finfish in the action area has also been documented. Prescott (1988) reviewed stranding data for Cape Cod Bay and concluded that for those turtles where cause of death could be determined (the minority), entanglement is the leading cause of death followed by capture by trawl, cold stunning, or collision with boats. More leatherback-fishery interactions seem to be indicative of entanglement in buoy lines and longline gear than are documented for gillnets and trawl gear. However, this may be an artifact of the lesser likelihood of finding marks from gillnets or trawl gear on stranded animals.

Leatherbacks are taken as bycatch in several fisheries including the pelagic longline, anchored gillnet, and pelagic gillnet. From 1992 to 1998, the pelagic longline fishery captured/entangled/hooks an estimated 5,003 leatherbacks, of which an estimated 39 were moribund or dead prior to release (NMFS 2000). Additional turtles may have been seriously injured or died following release. Leatherbacks were also taken in the temporary experimental pelagic pair trawl fishery for tunas, which is no longer authorized. Sea sampling coverage in the southeast shrimp fishery and shark bottom longline fishery has also recorded takes of leatherback turtles. Shrimp trawlers in the southeastern U.S. are required to use TEDs, which reduce a trawler's turtle capture rate by 97%. Even so, NMFS estimated that 4,100 turtles may be captured annually by shrimp trawling, including 650 leatherbacks that cannot be released through TEDs.

#### *Kemp's Ridley Sea Turtle*

The Kemp's ridley is the most endangered of the world's sea turtle species. The only major nesting site for ridleys is a single stretch

of beach near Rancho Nuevo, Tamaulipas, Mexico (Carr 1963). From 1985 to 1999, the number of nests observed at Rancho Nuevo and nearby beaches has increased at a mean rate of 11.3% per year, allowing cautious optimism that the population is on its way to recovery (TEWG 2000). For example, nesting data indicated that the number of adults declined from a population that produced 6,000 nests in 1966 to a population that produced 924 nests in 1978 and 702 nests in 1985 then increased to produce 1,940 nests in 1995. Estimates of adult abundance followed a similar trend from an estimate of 9,600 in 1966 to 1,050 in 1985 and 3,000 in 1995. First-time nesting adults increased from 6 to 28% from 1981 to 1989, and from 23 percent to 41 percent from 1990 to 1994, indicating that the Kemp's ridley population may be in the early stages of exponential growth (TEWG 1998).

Juvenile Kemp's ridleys use northeastern and mid-Atlantic coastal waters of the U.S. Atlantic coastline as primary developmental habitat during summer months, with shallow coastal embayments serving as important foraging grounds. Post-pelagic ridleys feed primarily on crabs, consuming a variety of species, including *Callinectes* sp., *Ovalipes* sp., *Libinia* sp., and *Cancer* sp. Mollusks, shrimp, and fish are consumed less frequently (Bjorndal 1997). Juvenile ridleys migrate south as water temperatures cool in fall, and are predominantly found in shallow coastal embayments along the Gulf Coast during fall and winter months.

Kemp's ridleys found in mid-Atlantic waters are primarily post-pelagic juveniles averaging 40 centimeters in carapace length, and weighing less than 20 kilograms (Terwilliger and Musick 1995). Next to loggerheads, they are the second most abundant sea turtle in Virginia and Maryland waters, arriving in the Chesapeake Bay during May and June, and migrating to more southerly waters in September to November (Keinath et al. 1987; Musick and Limpus 1997). In the Chesapeake Bay, ridleys frequently forage in shallow embayments, particularly in areas supporting submerged aquatic vegetation (Lutcavage and Musick 1985; Bellmund et al. 1987; Keinath et al. 1987; Musick and Limpus 1997). The juvenile population in Chesapeake Bay is estimated to be 211 to 1,083 turtles (Musick and Limpus 1997).

Juvenile ridleys follow regular coastal routes during spring and fall migrations to and from developmental foraging grounds along the mid-Atlantic and northeastern coastlines. Consequently, many ridleys occurring in coastal waters off Virginia and Maryland are transients involved in seasonal migrations. However, Maryland and Virginia coastal embayments - which contain an abundance of crabs, shrimp, and other prey as well as preferred foraging habitat such as shallow subtidal flats and submerged aquatic vegetation beds - are likely used as a foraging ground by Kemp's ridley sea turtles (John Musick, Virginia Institute of Marine Science, 1998 personal communication; Sherry Epperly, National Marine Fisheries Service, 1998 personal communication; Molly Lutcavage, New England Aquarium, 1998 personal communication). No known established nesting sites occur on Virginia or Maryland beaches.

#### *Anthropogenic impacts*

Anthropogenic impacts to the Kemp's ridley population are similar to those discussed above for the loggerhead sea turtle. Mortality in the large juvenile and adult life stages would have the greatest impact to the Kemp's ridley population (TEWG 1998). The vast majority of ridleys identified along the Atlantic Coast have been juveniles and subadults. Loss of individuals, particularly large juveniles, in the Atlantic resulting from human activities may therefore impede recovery of the Kemp's ridley sea turtle population.

Sea sampling coverage in the northeast otter trawl fishery, pelagic longline fishery, and southeast shrimp and summer flounder bottom trawl fisheries have recorded takes of Kemp's ridley turtles. As with loggerheads, a large number of Kemp's ridleys are taken in the southeast shrimp fishery each year. This species may also be taken in the Northeast shrimp fishery and bottom longline fisheries. An estimate of the number of Kemp's ridley turtles that can be removed by fishery mortality without compromising recovery cannot be provided at this time due to data deficiencies (TEWG 1998).

#### **Green Sea Turtle**

Green turtles are distributed circumglobally, mainly in waters between the northern and southern 20° C isotherms (Hirth 1971). In the western Atlantic, several major nesting assemblages have been identified and studied (Peters 1954; Carr and Ogren 1960; Duellman 1961; Carr et al. 1978). However, most green turtle nesting in the continental United States occurs on the Atlantic Coast of Florida (Ehrhart 1979). Occasional nesting has been documented along the Gulf coast of Florida, at Southwest Florida beaches, as well as the beaches on the Florida Panhandle (Meylan et al. 1995). Most green turtle nesting activity occurs on Florida index beaches. These index beaches were established to standardize data collection methods and effort on key nesting beaches. The pattern of green turtle nesting shows biennial peaks in abundance, with a generally positive trend during the six years of regular monitoring since establishment of the index beaches in 1989. There is evidence that green turtle nesting has been on the increase during the past decade. For example, increased nesting has been observed along the Atlantic coast of Florida, on beaches where only loggerhead nesting was observed in the past (Pritchard 1997). Recent population estimates for the western Atlantic area are not available.

Juvenile green sea turtles occupy pelagic habitats after leaving the nesting beach. Pelagic juveniles are assumed to be omnivorous, but with a strong tendency toward carnivory during early life stages. At approximately 20 to 25 cm carapace length, juveniles leave pelagic habitats, and enter benthic foraging areas, shifting to a chiefly herbivorous diet (Bjorndal 1997). Post-pelagic green turtles feed primarily on sea grasses and benthic algae, but also consume jellyfish, salps, and sponges. Known feeding habitats along U.S. coasts of the western Atlantic include shallow lagoons and embayments in Florida, and similar shallow inshore areas elsewhere. Some of the principal feeding pastures in the western Atlantic Ocean include the

upper west coast of Florida, the northwestern coast of the Yucatan Peninsula, the south coast of Cuba, the Mosquito Coast of Nicaragua, the Caribbean Coast of Panama, and scattered areas along Colombia and Brazil (Hirth 1971). The preferred food sources in these areas are *Cymodocea*, *Thalassia*, *Zostera*, *Sagittaria*, and *Vallisneria* (Carr 1952).

Although no green turtle foraging areas or major nesting beaches have been identified on the Atlantic Coast, evidence provided by Mendonca and Ehrhart (1982) indicates that immature green turtles may utilize lagoonal systems for foraging. These authors identified a population of young green turtles (carapace length 29.5-75.4 cm) believed to be resident in Mosquito Lagoon, Florida. The Indian River system, of which Mosquito Lagoon is a part, supported a green turtle fishery during the late 1800s (Ehrhart 1983), and these turtles may be remnants of this historical colony. The summer developmental habitat for green turtles encompasses estuarine and coastal waters as far north as Long Island Sound, Chesapeake Bay, and the North Carolina sounds, and south throughout the tropics (Musick and Limpus 1997). Most of the individuals reported in U.S. waters are immature (Thompson 1988). Individuals that use waters north of Florida during the summer must return to southern waters in autumn, or face the risk of cold stunning. In North Carolina, green turtles are known to occur in estuarine and oceanic waters and to nest in low numbers along the entire coast. No information is available regarding the occurrence of green turtles in the Chesapeake Bay, although they are presumably present in very low numbers.

#### *Anthropogenic impacts*

In 1978, the green turtle was listed as threatened under the ESA, except for the breeding populations in Florida and on the Pacific coast of Mexico, which were listed as endangered (NMFS and USFWS 1991a). Green turtles were traditionally highly prized for their flesh, fat, eggs, and shell, and fisheries in the United States and throughout the Caribbean are largely responsible for the decline of the species. Green turtles continue to be heavily exploited by man, with the degradation of nesting and feeding habitats, incidental capture in fisheries, and marine pollution acknowledged as serious hindrances to species recovery.

Sea sampling coverage in the pelagic driftnet, pelagic longline, scallop dredge, southeast shrimp trawl, and summer flounder bottom trawl fisheries has recorded takes of green turtles. The shrimp fishery has been estimated as taking as many as 300 turtles a year. Stranding reports indicate that between 200-300 green turtles strand annually from a variety of causes (Sea Turtle Stranding and Salvage Network, unpublished data). Green turtle takes have been documented in gillnet, trawl and longline gear. A preliminary sea sampling data summary (1994-1998) shows the following takes of green turtles in the Atlantic: 1 (anchored gillnet), 2 (pelagic driftnet), 2 (pelagic longline).

### **Hawksbill Sea Turtle**

The hawksbill turtle is relatively uncommon in the waters of the continental United States. Hawksbills prefer coral reefs, such as those found in the Caribbean and Central America. However, there are accounts of hawksbills in south Florida and a surprising number are encountered in Texas. Most of the Texas records report small turtles, probably in the 1-2 year class range. Many captures or strandings are of individuals in an unhealthy or injured condition (Hildebrand 1982). The lack of sponge-covered reefs and the cold winters in the northern Gulf of Mexico probably prevent hawksbills from establishing a viable population in this area. In the North Atlantic, small hawksbills have stranded as far north as Cape Cod, Massachusetts (STSSN database). Many of these strandings were observed after hurricanes or offshore storms. Although there have been no reports of hawksbills in the Chesapeake Bay, one has been observed taken incidentally in a fishery just south of the Bay (Anonymous 1992).

Hawksbills feed primarily on a wide variety of sponges but also consume bryozoans, coelenterates, and mollusks. The Culebra Archipelago of Puerto Rico contains especially important foraging habitat for hawksbills. Nesting areas in the western North Atlantic include Puerto Rico and the Virgin Islands.

No takes of hawksbill sea turtles have been recorded in northeast or mid-Atlantic fisheries covered by the NEFSC observer program.

### **Shortnose Sturgeon**

Shortnose sturgeon occur in large rivers along the western Atlantic coast from the St. Johns River, Florida (possibly extirpated from this system), to the Saint John River in New Brunswick, Canada. The species is anadromous in the southern portion of its range (i.e., south of Chesapeake Bay), while northern populations are amphidromous (NMFS 1998b). Population sizes vary across the species' range. From available estimates, smallest populations occur in the Cape Fear (~8 adults; Moser and Ross 1995) and Merrimack Rivers (~100 adults; M. Kieffer, United States Geological Survey, personal communication), while the largest populations are found in the Saint John (~100,000; Dadswell 1979) and Hudson Rivers (~61,000; Bain et al. 1998). Welsh et al. (1999) summarizes historical and recent evidence of shortnose sturgeon presence in the Chesapeake Bay. Fish have been found as far north as the Susquehanna River and as far south as the York River.

Total instantaneous mortality rates (Z) are available for the Saint John River (0.12 - 0.15; ages 14-55; Dadswell 1979), Upper Connecticut River (0.12; Taubert 1980), and Pee Dee-Winyah River (0.08-0.12; Dadswell et al. 1984). Total instantaneous natural mortality (M) for shortnose sturgeon in the lower Connecticut River was estimated to be 0.13 (T. Savoy, Connecticut Department of Environmental Protection, personal communication). There is no recruitment information available for shortnose sturgeon because there are no commercial fisheries for the species. Estimates of annual egg production for this species are difficult to calculate because females do not spawn every year (Dadswell et al. 1984). Further, females may abort

spawning attempts, possibly due to interrupted migrations or unsuitable environmental conditions (NMFS 1998b). Thus, annual egg production is likely to vary greatly in this species.

Shortnose sturgeon are benthic fish that mainly occupy the deep channel sections of large rivers. They feed on a variety of benthic and epibenthic invertebrates including molluscs, crustaceans (amphipods, chironomids, isopods), and oligochaete worms (Vladykov and Greeley 1963; Dadswell 1979). Shortnose sturgeon are long-lived (30 years) and, particularly in the northern extent of their range, mature at late ages. In the north, males reach maturity at 5 to 10 years, while females mature between 7 and 13 years.

In the northern extent of their range, shortnose sturgeon exhibit three distinct movement patterns that are associated with spawning, feeding, and overwintering periods. In spring, as water temperatures rise above 8° C, pre-spawning shortnose sturgeon move from overwintering grounds to spawning areas. Spawning occurs from mid/late April to mid/late May. Post-spawned sturgeon migrate downstream to feed throughout the summer. As water temperatures drop below 8° C again in the fall, shortnose sturgeon move to overwintering concentration areas and exhibit little movement until water temperatures rise again in spring (Dadswell et al. 1984; NMFS 1998b). Young-of-the-year shortnose sturgeon are believed to move downstream after hatching (Dovel 1981) but remain within freshwater habitats. Older juveniles tend to move downstream in fall and winter as water temperatures decline and the salt wedge recedes. Juveniles move upstream in spring and feed mostly in freshwater reaches during summer.

Shortnose sturgeon spawn in freshwater sections of rivers, typically below the first impassable barrier on the river (e.g., dam). Spawning occurs over channel habitats containing gravel, rubble, or rock-cobble substrates (Dadswell et al. 1984; NMFS 1998b). Additional environmental conditions associated with spawning activity include decreasing river discharge following the peak spring freshet, water temperatures ranging from 9 - 12° C, and bottom water velocities of 0.4 to 0.7 m/sec (Dadswell et al. 1984; NMFS 1998b).

The NMFS recovery plan indicates reports of shortnose sturgeon occurrence in the Chesapeake system as early as 1876. Other historical records include the Potomac River (Smith and Bean 1899), the upper Bay near the mouth of the Susquehanna River in the early 1980's, and the lower Bay near the mouths of the James and Rappahannock rivers in the late 1970's (Dadswell et al. 1984). According to the United States Fish and Wildlife Service (USFWS), as of March, 2002, 49 shortnose sturgeon were captured via the reward program, which began in 1996, in the Chesapeake Bay and its tributaries - three from the lower Susquehanna River, two in the Bohemia River, two south of the Bay Bridge near Kent Island, six in the Potomac River and one just north of Hoopers Island. In addition, one was captured in the Elk River and two in Fishing Bay. The remaining sturgeon were captured in the upper



Bay north of Hart-Miller Island. Nevertheless, distribution and movements of shortnose sturgeon in the Bay are poorly understood, in part because this species is often confused with Atlantic sturgeon. No population estimates for shortnose sturgeon in the Chesapeake Bay area are available at this time.

#### *Anthropogenic impacts*

The major known sources of anthropogenic mortality and injury of shortnose sturgeon include entrainment in dredges and entanglement in fishing gear. Injury and mortality can also occur at power plant cooling water intakes and structures associated with dams in rivers inhabited by this species. Shortnose sturgeon may also be adversely affected by habitat degradation or exclusion associated with riverine maintenance and construction activities and operation of power plants. Entanglement could include incidental catch in commercial or recreational gear as well as directed poaching activities. Shortnose sturgeon are most likely to interact with fisheries in and around the mouths of rivers where they are found. Thus, interactions are more likely to occur in state fisheries or unregulated fisheries than in the EEZ. Interactions are also most likely to occur during the spring migration (NMFS 1998b). According to information summarized by NMFS (1998b), operation of gillnet fisheries for shad may result in lethal takes of as many as 20 shortnose sturgeon per year in northern rivers. Shortnose sturgeon may be taken in ocean fisheries near rivers inhabited by this species. No comprehensive analysis of entanglement patterns is available at this time, in part due to the difficulty of distinguishing between shortnose and Atlantic sturgeon with the similarity in appearance of these two species. For example, several thousand pounds of "sturgeon" were reported taken in the squid/mackerel/butterfish fishery in 1992. However, this information is not broken down by species. NMFS sea sampling coverage has recorded takes of shortnose sturgeon in the monkfish sink gillnet fishery.

#### **ENVIRONMENTAL BASELINE**

Environmental baselines for biological opinions include the past and present impacts of all state, federal or private actions and other human activities in the action area, the anticipated impacts of all proposed federal projects in the action area that have already undergone formal or early Section 7 consultation, and the impact of state or private actions that are contemporaneous with the consultation in process (50 CFR 402.02). The environmental baseline for this biological opinion includes the effects of several activities that may affect the survival and recovery of threatened and endangered species in the action area. The activities that shape the environmental baseline in the action area of this consultation generally fall into the following three categories: vessel operations, fisheries, and recovery activities associated with reducing those impacts. Other environmental impacts include effects of discharges, dredging, ocean dumping, and sonic activity.

Due to logistical difficulties associated with most marine activities

and the significant amount of resources necessary to design effective monitoring programs, monitoring the effects of the various federal actions on threatened and endangered species has not been consistent for all species groups and all projects. For example, the most reliable method for monitoring fishery interactions is the sea sampling program, which provides random sampling of commercial fishing activities. However, due to the size, power, and mobility of whales, sea sampling is only effective for sea turtles and sturgeon. Although takes of whales are occasionally observed by the sea sampling program, levels of interaction between whales and fishing vessels and their gear is derived from data collected opportunistically. It is often impossible to assign gear found on stranded or free-swimming animals to a specific fishery. Consequently, the total level of interaction between fisheries and whales is unknown.

#### **A. Federal actions that have undergone formal or early Section 7 Consultation**

NMFS has undertaken several ESA Section 7 consultations to address the effects of vessel operations and gear associated with federally-permitted fisheries on threatened and endangered species in the action area. Each of those consultations sought to develop ways of reducing the probability of adverse impacts of the action on large whales and sea turtles. Similarly, recovery actions NMFS has undertaken under both the Marine Mammal Protection Act (MMPA) and the ESA are addressing the problem of take of whales in the fishing and shipping industries.

##### *Vessel Operations*

Potential adverse effects from federal vessel operations in the action area of this consultation include operations of the U.S. Navy (USN) and the U.S. Coast Guard (USCG), which maintain the largest federal vessel fleets, the EPA, the National Oceanic and Atmospheric Administration (NOAA), and the ACOE. NMFS has conducted formal consultations with the USCG, the USN (described below), and is currently in early phases of consultation with the other federal agencies on their vessel operations. In addition to operation of ACOE vessels, NMFS has consulted with the ACOE to provide recommended permit restrictions for operations of contract or private vessels around whales. Through the Section 7 process, where applicable, NMFS has and will continue to establish conservation measures for all these agency vessel operations to avoid adverse effects to listed species. At the present time, however, they represent potential for some level of interaction. Refer to the biological opinions for the USCG (September 15, 1995; July 22, 1996; and June 8, 1998) and the USN (May 15, 1997) for detail on the scope of vessel operations for these agencies and conservation measures being implemented as standard operating procedures.

Since the USN consultation only covered operations out of Mayport, Florida, potential remains for USN vessels to adversely affect large whales when they are operating in other areas within the range of these species. Similarly, operations of vessels by other federal

agencies within the action area (NOAA, EPA, ACOE) may adversely affect whales. However, the in-water activities of those agencies are limited in scope, as they operate a small number of vessels or are engaged in research/operational activities that are unlikely to contribute a large amount of risk. Through the consultation process, conservation recommendations will be provided to further reduce the potential for adverse impacts.

#### *Federal Fishery Operations*

Several commercial fisheries operating in the action area use gear that is known to take listed species. Efforts to reduce the adverse effects of commercial fisheries are addressed through both the MMPA take reduction planning process and the ESA Section 7 process. Federally regulated gillnet, longline, trawl, seine, dredge, and pot fisheries have all been documented as interacting with either whales or sea turtles or both. Other gear types are known to impact whales as well. For all fisheries for which there is a federal fishery management plan (FMP) or for which any federal action is taken to manage that fishery, impacts have been evaluated through the Section 7 process.

Formal ESA Section 7 consultation has been conducted on the following fisheries which may adversely affect threatened and endangered species in the action area: Multispecies, Monkfish, Summer Flounder/Scup/Black Sea Bass, Atlantic Bluefish, Spiny Dogfish, Tilefish, Scallop and Red Crab fisheries. These consultations are summarized below; for more detailed information, refer to the respective Biological Opinions.

The *Multispecies sink gillnet fishery* occurs in the action area and is known to entangle whales and sea turtles. This fishery has historically occurred along the northern portion of the Northeast Shelf Ecosystem from the periphery of the Gulf of Maine to Rhode Island in water depths to 60 fathoms. In recent years, more of the effort in this fishery has occurred in offshore waters and into the Mid-Atlantic. Participation in this fishery declined from 399 to 341 permit holders in 1993 and has declined further since extensive groundfish conservation measures have been implemented. Based on 1996 data, NMFS estimated that there were 273 participants in the northeast sink gillnet fishery as defined under the MMPA, which includes not only multispecies vessels, but also those using sink gillnet gear to target other species such as monkfish and dogfish. The fishery operates throughout the year with peaks in the spring and from October through February. Data indicate that gear used in this fishery has seriously injured or killed northern right whales, humpback whales, fin whales, and/or loggerhead and leatherback sea turtles.

The 1997 formal consultation on the Multispecies FMP concluded that the fishery, with modification under the ALWTRP, was not likely to jeopardize listed species or adversely modify critical habitat. However, serious injuries and at least one mortality of a right whale have occurred as a result of entanglements in gillnet gear since the 1997 Opinion. The gillnet gear entanglements may or may not be attributable to the multispecies gillnet fishery. In most cases, NMFS

is unable to assign responsibility for a gillnet gear entanglement to a particular fishery since entangling gear is not often retrieved or, when retrieved, lacks adequate identifiers to determine the fishery from which it originated. Since NMFS has been unable to determine the origin of the gillnet gear involved in the whale entanglements, including the gear involved in the 1999 right whale mortality, NMFS could not assume that these entanglements were not the result of the multispecies gillnet fishery.

As a result of gillnet entanglements in 1999, including one mortality of a right whale, NMFS reinitiated consultation on the Multispecies FMP on May 4, 2000, in order to reevaluate the ability of the RPA to avoid the likelihood of jeopardy to right whales. The Opinion also considered new information on the status of the northern right whale and new ALWTRP measures. The Opinion, signed on June 14, 2001, concluded that continued implementation of the Multispecies FMP is likely to jeopardize the existence of the northern right whale. A new RPA has been provided that is expected to remove the threat of jeopardy to northern right whales as a result of the gillnet sector of the multispecies fishery.

The *Monkfish Fishery Management Plan* was recently completed by the New England and Mid-Atlantic Fishery Management Councils. This fishery uses several gear types that may entangle protected species, and takes of shortnose sturgeon and sea turtles have been recorded from monkfish trips. The monkfish gillnet sector is included in either the northeast sink gillnet or mid-Atlantic coastal gillnet fisheries and is therefore regulated by the Atlantic Large Whale and Harbor Porpoise Take Reduction Plans. NMFS completed a formal consultation on the Monkfish FMP on December 21, 1998, which concluded that the fishery, with modification under the take reduction plans, is not likely to jeopardize listed species or adversely modify critical habitat.

However, as a result of gillnet entanglements in 1999, including one mortality of a right whale, NMFS reinitiated consultation on the Monkfish FMP on May 4, 2000, in order to reevaluate the ability of the RPA to avoid the likelihood of jeopardy to right whales. The Opinion also considered new information on the status of the northern right whale and new ALWTRP measures. The Opinion, signed on June 14, 2001, concluded that continued implementation of the Monkfish FMP is likely to jeopardize the existence of the northern right whale. A new RPA has been provided that is expected to remove the threat of jeopardy to northern right whales as a result of the gillnet sector of the monkfish fishery.

The *Summer Flounder, Scup and Black Sea Bass fisheries* are also known to interact with sea turtles. Based on occurrence of gillnet entanglements in other fisheries, the gillnet portion of this fishery could also entangle endangered whales, particularly humpback whales. The pot gear and staked trap sectors could entangle whales and sea turtles as well. Significant measures have been developed to reduce the take of sea turtles in summer flounder trawls and trawls that meet the definition of a summer flounder trawl (which would include

fisheries for other species like scup and black sea bass) by requiring TEDs in nets in the area of greatest bycatch off the North Carolina coast. NMFS is considering a more geographically inclusive regulation to require TEDs in trawl fisheries that overlap with sea turtle distribution to reduce the impact from this fishery. Developmental work is also ongoing for a TED that will work in the flynets used in the weakfish fisheries. The gillnet sector of this fishery is subject to the requirements of the ALWTRP and Harbor Porpoise Take Reduction Plan as appropriate through restrictions on the MMPA listings for the northeast sink gillnet fishery and/or mid-Atlantic coastal gillnet fishery. The most recent (February 29, 1996) formal consultation on this fishery concluded that the operation of the fishery may adversely affect but is not likely to jeopardize the continued existence of listed species. Expected annual incidental take for this fishery includes 15 threatened loggerhead sea turtles and no more than 3 cumulative endangered Kemp's ridley, hawksbill, leatherback, or green sea turtles.

Formal consultation on the *Atlantic Bluefish* fishery was completed on July 2, 1999. NMFS concluded that operation of the fishery under the FMP, as amended, is not likely to jeopardize the continued existence of listed species and not likely to adversely modify critical habitat. Of listed species under NMFS jurisdiction, the fishery is most likely to interact with loggerhead and Kemp's ridley sea turtles and shortnose sturgeon. Although there is a high degree of overlap between the bluefish fishery and other regulated fisheries, observer data suggests that takes of sea turtles may be occurring in unregulated fisheries that also harvest bluefish. Takes by vessels harvesting bluefish while fishing for unregulated species have not been previously addressed under the Section 7 process. A small number of takes of sea turtles and shortnose sturgeon was authorized in the Incidental Take Statement issued with the July 1999 Biological Opinion.

Formal consultation on the *Spiny dogfish* fishery was completed on August 13, 1999. NMFS concluded that the operation of the fishery under the FMP may adversely affect but is not likely to jeopardize the continued existence of listed species and not likely to adversely modify critical habitat, provided operation of the gillnet portion of the fishery was conducted in accordance with ALWTRP measures to reduce entanglements with right whales. However, serious injuries and at least one mortality of a right whale have occurred as a result of entanglements in gillnet gear since the 1999 Opinion. The gillnet gear entanglements may or may not be attributable to the spiny dogfish gillnet fishery. In most cases, NMFS is unable to assign responsibility for a gillnet gear entanglement to a particular fishery since entangling gear is not often retrieved or, when retrieved, lacks adequate identifiers to determine the fishery from which it originated. Since NMFS has been unable to determine the origin of the gillnet gear involved in the whale entanglements, including the gear involved in the 1999 right whale mortality, NMFS could not assume that these entanglements were not the result of the spiny dogfish

The dogfish fishery may also interact with sea turtles (all species) given the time and locations where the fishery occurs. The primary spiny dogfish gear types are sink gillnets, otter trawls, bottom longline, and driftnet gear; the capture of sea turtles could occur in all gear sectors of the fishery. Turtle takes in 2000 included one dead and one live Kemp's ridley. Since the ITS issued with the August 13, 1999 opinion only allows for the take of one lethal or non-lethal take of a Kemp's ridley, the incidental take level for the dogfish FMP was exceeded.

As a result of continuing gillnet entanglements, including one mortality of a right whale, and turtle takes in excess of the spiny dogfish ITS, NMFS reinitiated consultation on the Spiny Dogfish FMP on May 4, 2000, in order to reevaluate the ability of the RPA to avoid the likelihood of jeopardy to right whales, and the effect of the spiny dogfish gillnet fishery on sea turtles. The Opinion also considered new information on the status of the northern right whale and new ALWTRP measures. The Opinion, signed on June 14, 2001, concluded that continued implementation of the Spiny Dogfish FMP is likely to jeopardize the existence of the northern right whale. A new RPA has been provided that is expected to remove the threat of jeopardy to northern right whales as a result of the gillnet sector of the spiny dogfish fishery. In addition, a new ITS has been provided for the take of sea turtles in the fishery.

The FMP for spiny dogfish calls for a 30% reduction in quota allocation levels for 2000 and a 90% reduction beginning in 2001. Although there have been delays in implementing the plan, quota allocations are expected to be substantially reduced over the 4 ½ year rebuilding schedule which should result in a substantial decrease in effort directed at spiny dogfish. For the last four years of the rebuilding period, dogfish landings are likely to be limited to incidental catch in other fisheries. The reduction in effort should be of benefit to protected species by reducing the number of gear interactions that occur.

The management unit for the *Tilefish* FMP is all golden tilefish under U.S. jurisdiction in the Atlantic Ocean north of the Virginia/North Carolina border. Tilefish have some unique habitat characteristics, and are found in a warm water band (47-651 F) at approximately 250 to 1200 feet deep on the outer continental shelf and upper slope of the U.S. Atlantic coast. Because of their restricted habitat and low biomass, the tilefish fishery in recent years has occurred in a relatively small area in the mid-Atlantic Bight, south of New England and west of New Jersey. Nevertheless, the take of sea turtles in this fishery is possible.

It was previously believed that the *Scallop dredge fishery* was unlikely to take sea turtles given the slow speed at which the gear operates. However, the NMFS Northeast Fisheries Science Center has documented the take of thirteen sea turtles in this fishery from 1996 through October 2001. Therefore, the take of sea turtles in the scallop fishery (in both dredge and net gear) is possible when turtles

are present at the times and in the areas where the sea scallop fishery operates. Due to the potential for takes, NMFS is currently conducting section 7 consultation for the scallop fishery.

The *Red crab fishery* is a pot/trap fishery that occurs in deep waters along the continental slope. An FMP for the fishery is in development. There have been no recorded takes of ESA-listed species in the red crab fishery. However, given the type of gear used in the fishery, takes may be possible where gear overlaps with the distribution of ESA-listed species.

#### *Fishing vessel effects*

Other than entanglement in fishing gear, effects of fishing vessels on listed species may involve disturbance or injury/mortality due to collisions or entanglement in anchor lines. Listed species or critical habitat may also be affected by fuel oil spills resulting from fishing vessel accidents. No collisions between commercial fishing vessels and listed species or adverse effects resulting from disturbance have been documented. However, the commercial fishing fleet represents a significant portion of marine vessel activity. For example, more than 280 commercial fishing vessels fish on Stellwagen Bank in the Gulf of Maine. In addition, commercial fishing vessels may be the only vessels active in some areas, particularly in cooler seasons. Therefore, the potential for collisions exists. Due to differences in vessel speed, collisions during fishing activities are less likely than collisions during transit to and from fishing grounds. Because most fishing vessels are smaller than large commercial tankers and container ships, collisions are less likely to result in mortality. Although entanglement in fishing vessel anchor lines has been documented historically, no information is available on the prevalence of such events. Fuel oil spills could affect animals directly or indirectly through the food chain. Fuel spills involving fishing vessels are common events. However, these spills typically involve small amounts of material that are unlikely to adversely affect listed species. Larger spills may result from accidents, although these events would be rare and involve small areas. No direct adverse effects on listed species or critical habitat resulting from fishing vessel fuel spills have been documented. Given the current lack of information on prevalence or impacts of interactions, there is no basis to conclude that the level of interaction represented by any of the various fishing vessel activities discussed in this section would be detrimental to the recovery of listed species.

#### **B. State or private actions**

##### *Private and Commercial Vessels*

Private and commercial vessels operate in the action area of this consultation and also have the potential to interact with whales and sea turtles. Ship strikes have been identified as a significant source of mortality to the northern right whale population (Kraus 1990) and are also known to impact all other endangered whales. Small vessel traffic is also known to take sea turtles. A whale watch

enterprise focusing on humpback whales has developed in the Virginia Capes area in the winter months. In addition, an unknown number of private recreational boaters frequent coastal waters; some of these are engaged in whale watching or sportfishing activities. These activities have the potential to result in lethal (through entanglement or boat strike) or non-lethal (through harassment) takes of listed species that could prevent or slow a species' recovery. Effects of harassment or disturbance, which may be caused by whale watch operations, are currently unknown. Shipping traffic in Massachusetts Bay is estimated at 1,200 ship crossings per year with an average of 3 per day. Sportfishing contributes more than 20 vessels per day from May to September on Stellwagen Bank in the Gulf of Maine. Information is not currently available on how comparable these figures are to the level of vessel activity in the action area. The advent of new technology resulting in high-speed catamarans for ferry services and whale watch vessels operating in congested coastal areas contributes to the potential for impacts from privately operated vessels in the environmental baseline. Recent federal efforts regarding mitigating impacts of the whale watch and shipping industries on endangered whales are discussed in Section C below.

In addition to commercial traffic and recreational pursuits, private vessels participate in high-speed marine events concentrated in the southeastern U.S. that are a particular threat to sea turtles. The magnitude of these marine events is not currently known. NMFS and the USCG are in early consultation on these events, but a thorough analysis has not been completed. The Sea Turtle Stranding and Salvage Network also reports regular incidents of vessel interaction (propeller injury) with sea turtles off the New Jersey coast.

Other than injuries and mortalities resulting from collisions, the effects of disturbance caused by vessel activity on listed species is largely unknown. Although the difficulty in interpreting animal behavior makes studying the effects of vessel activities problematic, attempts have been made to evaluate the impacts of vessel activities such as whale watch operations on whales in the Gulf of Maine. However, no conclusive detrimental effects have been demonstrated.

#### *State fishery operations*

Very little is known about the level of take in fisheries that operate strictly in state waters. However, depending on the fishery in question, many state permit holders also hold federal licenses; therefore, Section 7 consultations on federal actions in those fisheries address some state-water activity. Impacts on sea turtles and shortnose sturgeon from state fisheries may be greater than those from federal activities in certain areas due to the distribution of these species. Impacts of state fisheries on endangered whales are addressed as appropriate through the MMPA take reduction planning process. NMFS is actively participating in a cooperative effort with the Atlantic States Marine Fisheries Commission (ASMFC) and member states to standardize and/or implement programs to collect information on level of effort and bycatch of protected species in state fisheries. When this information becomes available, it can be used to



refine take reduction plan measures in state waters. With regard to whale entanglements, vessel identification is occasionally recovered from gear removed from entangled animals. With this information, it is possible to determine whether the gear was deployed by a federal or state permit holder and whether the vessel was fishing in federal or state waters. In 1998, 3 entanglements of humpback whales in state-water fisheries were documented. Nearshore entanglements of turtles have been documented; however, information is not available on whether the vessels involved were permitted by the state or by NMFS.

In 1998, East Coast states from Maine through North Carolina began implementing regulations pursuant to the Year 1 requirements of *Amendment 3 to the Coastal Fishery Management Plan for American Lobster* (ASMFC 1997). The federal ACFCMA plan is designed to be parallel and complementary to the ASMFC plan. Regulations are geared toward reducing lobster fishing effort by 2005 to reverse the overfished status of the resource. Amendment 3 contained the outline of a long-term plan with annual targets during the rebuilding period and initial effort reduction measures for some areas. However, the development of most of the specific effort reduction measures necessary to meet the annual targets was left to the deliberations of the Lobster Conservation Management Teams (LCMT) established for each of the 7 lobster management areas. States in the 6 coastal areas must implement regulations according to a compliance schedule established in Amendment 3. Effort reduction measures will be similar to those discussed in the federal ACFCMA plan. Several states implemented trap caps in 1998. Further trap limits, which the compliance schedule requires for Area 1 and the Outer Cape Lobster Management Area in 1999, will generate some localized risk reduction for protected species in those areas. If all states elect to implement a significant trap reduction program, the overall entanglement risk from lobster pot gear could be substantially reduced. For the Amendment 3 measures not yet implemented, the ASMFC has recently conducted public hearings on the first half of the area-based effort reduction measures developed by LCMTs. The ASMFC will conduct public hearings and develop the second part of the remaining measures in the fall of 1999. As the definition of the fishery in the MMPA includes state water effort, vessels fishing in state waters will be required to comply with MMPA take reduction plan regulations designed to reduce entanglement risk to whales.

Pulses of greatly elevated sea turtle strandings occur with regularity in the Mid-Atlantic area, particularly along North Carolina through southern Virginia in the early spring/late fall, coincident with turtle migrations. For example, in the last weeks of April through early May 2000, approximately 300 turtles, mostly loggerheads, stranded north of Oregon Inlet, NC. Gillnets were found with four of the carcasses. These strandings are likely caused by state fisheries as well as federal fisheries, although not any one fishery has been identified as the major cause. Fishing effort data indicate that fisheries targeting monkfish, dogfish, and bluefish were operating in the area of the strandings. Strandings in this area represent at best, 7-13% of the actual nearshore mortality (Epperly et al. 1996).

Strandings in Virginia are also high in May and June, with an average of 157 turtles stranding in 1997-2000. Specifically, from May 19 to June 11, 2001, an estimated 160 sea turtles washed ashore dead in Virginia. Loggerhead turtles comprised the majority of the strandings (137), but 16 Kemp's ridley, 1 green, and 6 unidentified sea turtles also stranded during this time. Based upon the available observer information, the nature and location of the turtle strandings, the type of fishing gear in the vicinity of the greatest number of strandings, and the known interactions between sea turtles and large mesh and stringer pound net leaders, pound nets were considered to be a likely cause of these high sea turtle strandings. On June 18, 2001, NMFS issued a temporary rule that restricted the use of all pound net leaders of 8 inches or greater stretched mesh and all pound net leaders with stringers in Virginia waters of the mainstem Chesapeake Bay and tributaries for a period of 30 days.

Studies by Bass et al. (1998), Norrgard (1995) and Rankin-Baransky (1997) indicate that the percentage of northern loggerheads in this area is highly over-represented in the strandings when compared to the ~9% representation from this subpopulation in the overall U.S. sea turtle nesting populations. Specifically, the genetic composition of sea turtles in the action area is 25-54% from the northern subpopulation, 46-64% from the South Florida sub-population, and 3-16% from the Yucatan subpopulation. The cumulative removal of these turtles on an annual basis would severely impact the recovery of this species.

### **C. Conservation and recovery actions shaping the environmental baseline**

A number of activities are in progress that ameliorate some of the adverse effects on listed species posed by activities summarized in the Environmental Baseline. Education and outreach activities are considered one of the primary tools to reduce the risk of collision represented by the operation of private and commercial vessels. The USCG educates mariners on whale protection measures and uses its programs -- such as radio broadcasts and notice to mariner publications -- to alert the public to potential whale concentration areas. The USCG also participates in international activities (discussed below) to decrease the potential for commercial ships to strike a whale. Recently, an educational video on the ship strike problem was produced and is being distributed to mariners. In addition, outreach efforts under the ALWTRP for fishermen are also increasing awareness among fishermen that is expected in the long run to help reduce the adverse effects of vessel operations on threatened and endangered species in the action area.

In addition to the ESA measures for federal activities mentioned in the previous section, numerous recovery activities are being implemented to decrease the adverse effects of private and commercial vessel operations on the species in the action area and during the time period of this consultation. These include the Sighting Advisory

System (SAS), other activities recommended by the Northeast Recovery Plan Implementation Team for the Right and Humpback Whale Recovery Plans (NEIT) and Southeast Recovery Plan Implementation Team for the Right Whale Recovery Plan (SEIT), and NMFS regulations.

#### *Whales*

In 1994, NMFS established the NEIT for the northern right whale and humpback whale recovery plans. Membership of the NEIT consists of representatives from federal and state regulatory agencies and is advised by a panel of scientists with expertise in right and humpback whale biology. The Recovery Plans describe steps to reduce impacts to levels that will allow the two species to recover and rank the various recovery actions in order of importance. The NEIT provides advice to the various federal and state agencies or private entities on achieving these national goals within the Northeast Region. The NEIT agreed to focus on habitat and vessel related issues and rely on the take reduction planning process under the MMPA for reducing takes in commercial fisheries. Through the deliberations of the NEIT, NMFS has implemented a number of activities that reduce the potential for adverse effects to endangered whales from the aforementioned state, federal, and private activities. For example, the NEIT was the driving force behind the outreach activities described above which promote awareness of the right whale ship strike problem among commercial ship operators.

The Northeast Sighting Advisory System (SAS), originally called the "Early Warning System", was designed to document the presence of right whales in and around critical habitat and nearby shipping/traffic separation lanes in order to avert ship strikes. Through a fax-on-demand system, fishermen and other vessel operators can obtain SAS sighting reports and, in some cases, make necessary adjustments in operations to decrease the potential for interactions with right whales. The SAS activity has also served as the only form of active entanglement monitoring in the critical habitat areas, and several entanglements in both the Cape Cod Bay and Great South Channel areas have been reported by SAS flights. Some of these sighting efforts have resulted in successful disentanglement of right whales. SAS flights have also contributed to sightings of dead floating animals that can occasionally be retrieved to increase our knowledge of the biology of the species and effects of human impacts. The Commonwealth of Massachusetts was a key collaborator in the SAS pilot effort and has continued the partnership. The USCG has also played a vital role in this effort, providing both air and sea support as well as a commitment of resources to the NMFS operations. The State of Maine and Canada Department of Fisheries and Oceans have expressed interest in conducting this type of program in their coastal waters. It is expected that other potential sources of sightings such as the U.S. Navy may contribute regularly to this effort following NMFS' commitment to support the program over the long term. Due to increased awareness, U.S. Navy vessels have begun to contribute sightings of entangled and dead floating animals in recent years. NMFS' Maine ALWTRP Coordinator is also working with local aquaria to collect information on whale sightings from fishing vessels in the Gulf of

Maine. All this cooperation will increase the chance of success of this program in diverting potential impacts in the environmental baseline.

In one recovery action aimed at reducing vessel-related impacts, including disturbance, NMFS published a proposed rule in August 1996 restricting vessel approach to right whales (61 FR 41116) to a distance of 500 yards. The Recovery Plan for the Northern Right Whale identified anthropogenic disturbance as one of many factors that had some potential to impede right whale recovery (NMFS 1991b). Following public comment, NMFS published an interim final rule in February 1997 codifying the regulations. With certain exceptions, the rule prohibits both boats and aircraft from approaching any right whale closer than 500 yds. Exceptions for closer approach are provided for the following situations, when: (a) compliance would create an imminent and serious threat to a person, vessel, or aircraft; (b) a vessel is restricted in its ability to maneuver around the 500-yard perimeter of a whale; (c) a vessel is investigating or involved in the rescue of an entangled or injured right whale; or (d) the vessel is participating in a permitted activity, such as a research project. If a vessel operator finds that he or she has unknowingly approached closer than 500 yds, the rule requires that a course be steered away from the whale at slow, safe speed. Exceptions are made for emergency situations and where certain authorizations are provided. In addition, all aircraft, except those involved in whale watching activities, are excepted from these approach regulations. The regulations are consistent with the Commonwealth of Massachusetts' approach regulations for right whales. This rule is expected to reduce the potential for vessel collisions and other adverse vessel-related effects in the environmental baseline.

As part of NEIT activities, a Ship Strike Workshop was held in December 1996 to inform the shipping community of the need to participate in efforts to reduce the impacts of commercial vessel traffic on northern right whales. The workshop summarized current research efforts using new shipboard and moored technologies as deterrents, and a report was given on ship design studies currently being conducted by the New England Aquarium and Massachusetts Institute of Technology. This workshop increased awareness in the shipping community, which is expected to further contribute to reducing the threat of ship strikes of right whales. In addition, a Cape Cod Canal Tide Chart that included information on critical habitat areas and the need for close watch during peak right whale activity was distributed widely to professional mariners and ships passing through the canal. A radio warning transmission was also transmitted by Canal traffic managers to vessels transiting the Canal during peak Northern right whale activity periods. Follow-up meetings were held with New England Port Authority and pilots to notify commercial ship traffic to keep a close watch during peak right whale movement periods.

In April 1998, the USCG submitted, on behalf of the United States, a proposal to the International Maritime Organization (IMO) requesting

approval of a mandatory ship reporting system (MSR) in two areas off the east coast of the United States. The USCG worked closely with NMFS and other agencies on technical aspects of the proposal. The package was submitted to the IMO's Subcommittee on Safety and Navigation for consideration and submission to the Marine Safety Committee at IMO and approved in December 1998. The USCG and NOAA will play important roles in helping to operate the MSR system, which was implemented on July 1, 1999.

Through deliberations of the NEIT and its Ship Strike Committee, NMFS and the National Ocean Service (NOS) recently revised the whale watch guidelines for the Northeast, including the Studds-Stellwagen National Marine Sanctuary. Additional NEIT recommendations regarding whale watching activities are under discussion.

The NEIT also has a Habitat Committee, which deals with issues of habitat quality. The Committee was actively involved in commenting on several activities such as a new sewage outfall system. In addition, planning is underway for a food web study to provide better understanding of whale prey resource requirements and how activities such as the sewage outfall might affect the availability of plankton resources to feeding right whales.

#### *Sea Turtles*

NMFS has implemented a series of regulations aimed at reducing the potential for incidental mortality of sea turtles in commercial fisheries. In particular, NMFS has required the use of TEDs in southeast U.S. shrimp trawls since 1989 and in summer flounder trawls in the Mid-Atlantic area (south of Cape Henry, Virginia) since 1992. It has been estimated that TEDs exclude 97% of the turtles caught in such trawls. These regulations have been refined over the years to ensure that TED effectiveness is maximized through proper placement and installation, configuration (e.g., width of bar spacing), floatation, and more widespread use. However, with the expansion of fisheries to previously underutilized species of fish, trawl effort directed at species other than summer flounder -- and that does not meet the definition of a summer flounder trawl as specified in the TED regulations -- may be an undocumented source of mortality for which TEDs should be considered.

In 1993 (with a final rule implemented 1995), NMFS established a Leatherback Conservation Zone to restrict shrimp trawl activities from off the coast of Cape Canaveral, Florida, to the North Carolina/Virginia border. This provides for short-term closures when high concentrations of normally pelagically distributed leatherbacks are recorded in more coastal waters where the shrimp fleet operates. This measure is necessary because, due to their size, adult leatherbacks are larger than the escape openings of most NMFS-approved TEDs. Two-week closures were implemented four times in 1998 in the Leatherback Conservation Zone to protect migrating turtles.

NMFS is also working to develop a TED which can be effectively used in

a type of trawl known as a flynet, which is sometimes used in the mid-Atlantic and northeast fisheries for summer flounder, scup, and black sea bass. If observer data conclusively demonstrate a need for such TEDs, regulations will be formulated to require use of TEDs in this fishery, once such a device has been developed.

In addition, NMFS has been active in public outreach efforts to educate fishermen regarding sea turtle handling and resuscitation techniques. In addition to making this information widely available to all fishermen, NMFS has conducted workshops with longline fishermen to discuss incidental take issues and to provide guidance on handling and release procedures. NMFS intends to continue these outreach efforts and hopes to reach all fishermen participating in the pelagic longline fishery over the next one to two years.

There is an extensive array of Sea Turtle Stranding and Salvage Network (STSSN) participants along the Atlantic and Gulf of Mexico coasts which not only collects data on dead sea turtles, but also rescues and rehabilitates live stranded turtles. Data collected by the STSSN are used to monitor stranding levels and compare them with fishing activity in order to determine whether additional restrictions on fishing operations are needed. These data are also used to monitor incidence of disease, study toxicology and contaminants, and conduct genetic studies to determine population structure. All of the states that participate in the STSSN are collecting tissue for and/or conducting genetic studies to better understand the population dynamics of the small subpopulation of northern nesting loggerheads. These states also tag live turtles when encountered (either via the stranding network through incidental takes or in-water studies). Tagging studies help provide an understanding of sea turtle movements, longevity, and reproductive patterns.

There is currently no organized, formal program for at-sea disentanglement of sea turtles. However, recommendations for such programs are being considered by NMFS pursuant to conservation recommendations issued with several recent Section 7 consultations. Entangled sea turtles found at sea in recent years have been disentangled on an ad hoc basis by STSSN members, the whale disentanglement team, the USCG, and fishermen.

NMFS regulations require fishermen to handle sea turtles in such a manner as to prevent injury. As stated in 50 CFR 223.206(d)(1), any sea turtle taken incidentally during fishing or scientific research activities must be handled with due care to prevent injury to live specimens, observed for activity, and returned to the water according to a series of procedures which were recently published.

#### **D. Other potential sources of impacts in the action area**

A number of anthropogenic activities are likely to directly or indirectly affect listed species in the action area of this consultation. These sources of potential impact include previous dredging projects, pollution, water quality, and sonic activities.

However, the impacts from these activities are difficult to measure. Where possible, conservation actions are being implemented to monitor or study impacts from these elusive sources.

Close coordination is occurring through the Section 7 process on both dredging and disposal sites to develop monitoring programs and to minimize the potential for vessel-related impacts. As mentioned previously, whole sea turtles and sea turtle parts have been taken in hopper dredging operations in Thimble Shoal Channel. Several of these takes involved decomposed turtle parts, but a significant number of these takes involved fresh dead animals. Dredging in the surrounding area could have influenced the distribution of sea turtles and/or disrupted potential foraging habitat.

Within the action area, sea turtles and optimal sea turtle habitat most likely have been impacted by pollution. Marine debris (e.g., discarded fishing line or lines from boats) can entangle turtles in the water and drown them. Turtles commonly ingest plastic or mistake debris for food, as observed with the leatherback sea turtle. The leatherback's preferred diet includes jellyfish, but similar looking plastic bags are often found in the turtle's stomach contents (Magnuson et al. 1990).

Chemical contaminants may also have an effect on sea turtle reproduction and survival. While the effects of contaminants on turtles is relatively unclear, pollution may be linked to the fibropapilloma virus that kills many turtles each year (NMFS 1997). If pollution is not the causal agent, it may make sea turtles more susceptible to disease by weakening their immune systems.

Excessive turbidity due to coastal development and/or construction sites could influence sea turtle foraging ability. Turtles are not very easily affected by changes in water quality or increased suspended sediments, but if these alterations make habitat less suitable for turtles and hinder their capability to forage, eventually they would tend to leave or avoid these less desirable areas (Ruben and Morreale 1999).

NMFS and the U.S. Navy have been working cooperatively to establish a policy for monitoring and managing acoustic impacts from anthropogenic sound sources in the marine environment. Acoustic impacts can include temporary or permanent injury, habitat exclusion, habituation, and disruption of other normal behavior patterns. It is expected that the policy on managing anthropogenic sound in the oceans will provide guidance for programs such as the use of acoustic deterrent devices in reducing marine mammal-fishery interactions and review of federal activities and permits for research involving acoustic activities.

#### ***Summary and Synthesis of the Status of the Species and Environmental Baseline***

In summary, the potential for activities that may have previously impacted listed species (dredging, vessel operations, military

activities, commercial and state fisheries, etc.), to affect whales, sea turtles, and shortnose sturgeon remains throughout the action area of this consultation on the ACOE's dredging of the Thimble Shoal Channel and Atlantic Ocean Channel. However, recovery actions have been undertaken as described and continue to evolve. Although those actions have not been in place long enough for a detectable change in the right whale population (or other listed species populations) to have occurred, those actions are expected to benefit the right whale and other listed species in the foreseeable future. These actions should not only improve conditions for listed whales and sea turtles, they are expected to reduce sources of human-induced mortality as well.

However, a number of factors in the existing baseline for the large whales considered in this Opinion (especially right whales), and sea turtles (especially loggerheads and leatherbacks) leave cause for considerable concern regarding the status of these populations, the current impacts upon these populations, and the impacts associated with future activities planned by the state and federal agencies.

- The right whale population continues to be declining. Based on recent estimates this population currently numbers fewer than 300 individuals and only one calf was observed in 1999. Losses of adult whales due to ship strikes and entanglements in fishing gear continue to depress the recovery of this species.
- The leatherback sea turtle is declining worldwide. Not considering takes associated with the NMFS managed fisheries, other sources of mortality incurred by this population exceed the 1% sustainable level projected by Spotila et al. (1996).
- The northern subpopulation of loggerhead sea turtles is declining and currently numbers only about 3,800 nesting females. The percent of northern loggerheads represented in sea turtle strandings in northern U.S. Atlantic states is over-representative of their total numbers in the overall loggerhead population. Current take levels from other sources, particularly fisheries (especially trawl and gillnet fisheries), are high.

#### **EFFECTS OF THE ACTION**

This section of a biological opinion assesses the direct and indirect effects of the proposed action on threatened and endangered species or critical habitat, together with the effects of other activities that are interrelated or interdependent (50 CFR 402.02). Indirect effects are those that are caused later in time, but are still reasonably certain to occur. Interrelated actions are those that are part of a larger action and depend upon the larger action for their justification. Interdependent actions are those that have no independent utility apart from the action under consideration (50 CFR 402.02).

Several listed species are likely to be present in the action area at



various times of the year and may therefore be adversely affected directly or indirectly by the dredging and/or transport phases of this project. The primary concern for sea turtles and shortnose sturgeon is entrainment in the draghead of the hopper dredge, while the main concern for endangered whales involves the potential for vessel collisions.

The Thimble Shoal Channel and Atlantic Ocean Channel areas are part of the coastal corridor through which sea turtles migrate. In addition, the Chesapeake Bay is apparently an important foraging area for juvenile sea turtles. Turtles are likely to be in the area from April to November, and interactions could occur during migrations into or out of the Bay or while sea turtles are foraging in the area.

The two most common sea turtle species in the action area are the loggerhead and Kemp's ridley sea turtles. Leatherback sea turtles may also be present in the more offshore areas of the project. Hawksbill and green turtles may occasionally enter the area and may therefore interact with the project activities. However, these instances would be extremely rare. Endangered whales, including humpback, fin, and right whales, could migrate through the action area. As these species are found more frequently in deeper offshore waters rather than in shallow nearshore or inshore waters, they would be more likely to occur in the vicinity of Atlantic Ocean Channel.

The project under consideration is the deepening and the maintenance dredging of the Thimble Shoal Federal Navigation Channel and Atlantic Ocean Channel. Sea turtles may occur in the action area at various times of the year and may therefore be adversely affected directly or indirectly by the dredging operations. Sea turtles are likely to be feeding on or near the bottom of the Chesapeake Bay during the warmer months, with loggerheads and Kemp's ridleys being the most common species in these waters. One of the main factors influencing sea turtle presence in northern waters is seasonal temperature patterns (Ruben and Morreale 1999). Temperature is correlated with the time of year, with the warmer waters in the late spring, summer, and early fall being the most suitable for cold-blooded sea turtles. If sea turtles are expected to be more common in the action area during the warmer months, the likelihood that dredging activities would affect sea turtles is greater at this time than in other times of the year.

The presence of shortnose sturgeon in the Chesapeake Bay has recently been documented (Welsh et al. 1999). Within the Chesapeake Bay, this species has been more frequently documented in Maryland waters, but has historically been found as far south as the Rappahannock River. Distribution and movements of shortnose sturgeon in the Bay are poorly understood at this time, in part because this species is often confused with Atlantic sturgeon. Therefore, the NMFS must implement a conservative approach and conclude that shortnose sturgeon may be present in the project area and that the species may be vulnerable to project impacts.

Although there is currently no evidence of shortnose sturgeon presence

in the Thimble Shoal Channel or Atlantic Ocean Channel, the occurrence in other areas of the Bay and rivers to the south suggests that this species may be present on rare occasions. No information is currently available on which times of the year this species could be present. However, because of the rarity of the species in the Virginia waters of the Chesapeake Bay, NMFS anticipates the level of interaction, if any, to be extremely low or discountable. Likewise, shortnose sturgeon are unlikely to make frequent use any of the areas targeted for dredging for feeding, spawning or overwintering purposes.

Dredging of approximately 2.5 million cubic yards from the inner harbor channels will likely be performed using a hydraulic pipeline dredge, and the dredged material will be placed in the Craney Island upland disposal site. The use of mechanical and hydraulic dredging equipment other than hopper dredges is not expected to adversely affect sea turtles or marine mammals. Hopper dredges will be used to dredge in the Thimble Shoal and Atlantic Ocean Channels. NMFS has determined that dredging of the Thimble Shoal Channel and Atlantic Ocean Channel may adversely affect threatened and endangered species in three different ways: (1) the proposed action can alter foraging habitat; (2) the dredges can entrain and kill sea turtles and shortnose sturgeon; and (3) the proposed action can increase the number of species (turtles and whales in particular) injured or killed in collisions with vessels by increasing vessel traffic in the action area. Biological interactions result from disturbance of normal foraging behavior and changes in the composition of the marine community.

The sea turtle recovery plans identify the impacts of dredging as both the destruction or degradation of habitat and the incidental take of sea turtles. The proposed project involves both types of impacts. Since dredging involves removing the bottom material down to a specified depth, the benthic environment could be severely impacted by dredging operations. Dredging would likely cause indirect effects on sea turtles by reducing prey species through the alteration of the existing biotic assemblages. The most common sea turtles found in the action area, the loggerhead and Kemp's ridley, forage mainly on benthic species, namely crabs and mollusks (Morreale and Standora 1992, Bjorndal 1997). The loss of foraging habitat could be especially detrimental to sea turtles because these species primarily enter shallow harbors and bays to forage (NMFS 1995). Turtles are not very easily affected by changes in water quality, increased suspended sediments, or even by moderate alterations of flow regimes. Nevertheless, if these changes make the habitat less suitable for turtles, in the long run sea turtles would tend to leave or avoid these less desirable areas, especially if they became food limited (Ruben and Morreale 1999).

Of the listed species considered in this Opinion, loggerhead sea turtles are the most likely to utilize these areas for feeding. However, it is important to note that some of prey species targeted by turtles and shortnose sturgeon are mobile and are likely to avoid the dredge. In addition, the proposed dredging is not located in an area

identified as critical habitat or a major foraging area. Sea turtles are not likely to be more attracted to the Thimble Shoal or Atlantic Ocean channel area than to other foraging areas in the Bay and should be able to find sufficient prey in alternate areas. The absence of sightings of shortnose sturgeon in Virginia waters of the Chesapeake Bay suggests that this species is unlikely to detect or be affected by any changes in the density of prey in the areas proposed for dredging. Thus, NMFS anticipates that the maintenance dredging of both the Thimble Shoal Channel and the Atlantic Ocean Channel are not likely to disrupt normal feeding behaviors for sea turtles or shortnose sturgeon and are not likely to remove critical amounts of prey resources from the Bay.

Entrainment is the most imminent danger for sea turtles and shortnose sturgeon during selected dredging operations because hopper dredges are known to entrain these species (Magnuson et al. 1990, Slay 1995). Mortality in hopper dredging operations occurs when the species are sucked into the dredge draghead, pumped through the intake pipe and then killed as they cycle through the centrifugal pump and into the hopper. Because entrainment is believed to occur primarily while the draghead is operating on the bottom, it is likely that only those species feeding or resting on or near the bottom would be vulnerable to entrainment. In rare cases, animals may be entrained if suction is created in the draghead by current flow while the device is being placed or removed. However, it is possible to operate the dredge in a manner that minimizes potential for such incidents as noted in the Monitoring Specifications for Hopper Dredges (Appendix B).

There is more documentation of entrained sea turtles than shortnose sturgeon, likely as a result of the turtle's larger size. In King's Bay, Georgia, turtle parts were found at the mouth of the hopper dredge draghead (Slay and Richardson 1988), and at least 38 sea turtle mortalities associated with hopper dredging were recorded during 1991 in three ports located in Brunswick, Georgia, Savannah, Georgia, and Charleston, South Carolina (Slay 1995).

Documented mortalities are more common in the southeastern U.S. probably due to the greater abundance of turtles in these waters, but the potential for an individual sea turtle to be entrained in hopper dredges would be the same for turtles present in the Northeast and Mid-Atlantic. Sea turtle mortality in dredging activities has been documented in the Northeast; a loggerhead turtle was taken by a hopper dredge off the coast of Sea Girt, New Jersey during an ACOE beach renourishment project on August 23, 1997. This turtle was closed up in the hinge between the draghead and the dragarm as the dragarm lifted off the bottom. Additionally, during the dredging of 1,200,000 cy of sediment from Delaware Bay in 1994, a loggerhead turtle was entrained in a hopper dredge.

As mentioned previously, maintenance dredging of Thimble Shoal was conducted in the summer of 2000. During this time, three sea turtles were taken in the hopper dredge. In all of these cases, a draghead deflector was used and the water temperature was 25° C. On July 24,

2000, three unidentifiable pieces of plastron were recovered from the discharge screening. On August 22, 2000, a fresh loggerhead was recovered from the port draghead. Only the head, front flippers, 1/3 of the carapace, and 1/2 of the plastron was recovered. This turtle's neck was broken, the muscles were still pink, and the barnacles on the carapace were alive, indicating that the dredge was the likely cause of death. On August 25, 2000, a piece of loggerhead carapace and attached tissue was removed, and in a subsequent load, a section of digestive tract was recovered. On August 27, 2000, a decomposed loggerhead with a missing section of carapace and many broken bones was recovered. These three takes (two on August 25 and one on August 27) were believed to be the same animal given the size of animal, species, location, state of decomposition, and sections of missing carapace.

Sea turtles were also taken during dredging in the Thimble Shoal Channel in the initial stages of the Virginia Beach project in August 2001. On August 7, 2001, a fresh, whole loggerhead with a cracked carapace was discovered from the draghead, and on August 9, a fresh loggerhead was found lodged in the port draghead, inboard side of the visor. Only the carapace and right front flipper was present. On August 16, the decomposed right front flipper from an unknown species of sea turtle was recovered from the inflow starboard fore screening basket, and on August 17, sections of a loggerhead's carapace, plastron, muscle, and digestive tract were found in the inflow fore port screening basket. Several small veins and arteries still had a bright red coloration, indicating that the turtle likely died recently. On August 20, in the inflow port aft screening basket, the rear left flipper, femoral scutes, and additional skin, muscle and bone, from a loggerhead turtle were found. The turtle was determined to be a fresh dead turtle due to the condition of the specimens. The decomposed front flippers of a loggerhead were recovered from the port draghead (a portion partially underneath the draghead and a portion pinched in the hinge on outside of draghead) on August 21, and on August 22, a severely decomposed portion of a loggerhead carapace was found in the inflow mid screening basket. While it is difficult to determine conclusively, it is possible that the decomposed parts taken on August 21 and August 22 were from the same turtle. On August 24, the decomposed rear flipper of a loggerhead was recovered from the inflow fore screening basket, and on August 28, a fresh loggerhead, missing only a portion of its carapace, was found lodged in the bottom of the starboard draghead. Fragments of this loggerhead's carapace were also removed from the intake screening basket. On September 26, 2001, a decomposed piece of an unknown turtle's plastron was found in the overflow screening basket, and on October 23, a carapace piece from an unknown species of turtle was found in the overflow screening basket. A piece of Kemp's ridley carapace was recovered from the inflow screening basket on November 4. On November 11, two separate incidents were documented at different times, including a portion of a flipper and two ribs without attached tissue from an unknown species of turtle, and a portion of the plastron (with no tissue) from an unknown species of turtle. On November 20, two carapace fragments and associated tissue from a fresh loggerhead were taken. These takes

resulted in a total of 15 incidents when turtles and/or turtle parts were taken in association with dredging in Thimble Shoal Channel.

Thus, during dredging for the Virginia Beach project, there were fifteen instances in which sea turtles or sea turtle parts were taken. Five of the incidentally captured turtles were considered to be fresh dead turtles, and the remaining incidents involved decomposed turtle flippers and/or carapace parts. As mentioned, it is difficult to determine if the decomposed turtle parts found on the dredge screening on August 21 and 22 represent one or two separate turtles. It is also possible that the four instances of decomposed turtles and turtle parts found in the screening baskets died from other causes, not related to dredging activities. NMFS does consider decomposed animals taken in Federal operations (dredging, power plant operations, etc.) to be takes, as the possession of a listed species is considered a take. As NMFS factors in these instances in the development of an anticipated incidental take level, these incidental takes of decomposed animals would count against a Federal action agency's Incidental Take Statement, unless the biological opinion and Incidental Take Statement indicate otherwise.

During the Virginia Beach Hurricane Protection Project, relocation trawling was performed prior to hopper dredging in order to minimize the number of turtles taken in hopper dredges by displacing sea turtles that were in the dredging channel. As of October 4, 2001, 9 loggerhead turtles and 3 Kemp's ridleys were captured and relocated during trawling operations.

The level of effort in the Virginia Beach Hurricane Protection project is comparable to the proposed deepening project. Therefore, the interactions with sea turtles during the proposed deepening would be expected to be relatively the same as the interactions during the Virginia Beach Hurricane Protection Project. Typical maintenance dredging generally involves a smaller magnitude of material to be removed than deepening projects, and sea turtle interactions, therefore, would be expected to be less. As such, the level of sea turtle interactions would depend on the extent, duration, and magnitude of dredging anticipated.

It is also possible that certain environmental conditions increased the numbers of turtles in the Thimble Shoal Channel in August of 2001. However, those environmental conditions are unknown at this time and water column temperatures were relatively typical for August in Virginia (ranging from 26 to 28°C on the days when takes occurred). It is also possible that more turtles were taken in August 2001 due to the methods of operating the dredge. It appears that the Endangered Species Protection Protocol was followed and measures to reduce turtle takes were implemented. However, these operations should be verified (and training to reduce future takes should be conducted) by the dredge inspectors who will be onboard future dredging activities in the Thimble Shoal Channel and Atlantic Ocean Channel.

Shortnose sturgeon prefer deeper waters, which would magnify the potential for dredging interactions occurring in the deep channels. While turtles primarily forage in shallow environments, they have been found resting in deeper waters which could cause additional impacts from dredging activities. Marine mammals are highly unlikely to be entrained by the dredge. In 1981, observers documented the take of 71 loggerheads by a hopper dredge at the Port Canaveral Ship Channel, Florida (Slay and Richardson 1988). This channel is a deep, low productivity environment in the Southeast Atlantic that encourages turtles to rest on the bottom, making them extremely vulnerable to entrainment. The large number of turtle mortalities at the Port Canaveral Ship Channel in the early 1980s resulted in part from turtles being buried in the mud, but this is the only area on the East Coast where this is known to occur. Chelonid turtles have been found to make use of deeper, less productive channels as resting areas that afford protection from predators because of the low energy, deep water conditions. Leatherbacks have been shown to dive to great depths, often spending a considerable amount of time on the bottom (NMFS 1995). Regardless, crushing of sea turtles is unlikely to happen in the action area because turtles are not expected to burrow into the sediment and become dormant as they apparently do further south. In the rare event that shortnose sturgeon are in the area, individuals of this species could incur crushing injuries (i.e., injuries other than from actual entrainment).

Contact injuries resulting from dredge movements would occur at or near the water surface and could therefore involve any of the listed species present in the area. Because the dredge is unlikely to be moving at speeds greater than 7 knots during dredging operations, blunt trauma injuries resulting from contact with the hull are unlikely. It is more likely that contact injuries would involve the propeller of the vessel. In general, vessel strikes are rare events but a number of stranded turtles do exhibit wounds consistent with vessel interactions.

There have not been any reports of dredge vessels colliding with listed species, but contact injuries with the dredge are more likely to occur when the dredge is moving from the dredging area to the disposal site. While the distance between these areas is only approximately 4 to 25 miles, the dredge at transit would be moving at faster speeds than during dredging operations, particularly when empty while returning to the channel. Dredges which have been used in the past can operate at speeds of at least 12.1 knots when loaded and 13.4 knots when empty. Thus, vessel strikes are a greater concern during the transit phase of the project. However, the ACOE's proposal to institute a bridge watch during peak abundance periods of turtles, and for whales year-round, reduces the potential for interactions. If animals are sighted and the dredge operator is alerted immediately, the dredge operator should be able to avoid most collisions. Due to these precautions, NMFS does not believe that collisions between sea turtles and dredge vessels will occur. Since it is unlikely that right, humpback, or fin whales will occur in the areas proposed for dredging, and shortnose sturgeon are unlikely to be on the surface where they are vulnerable to a ship strike, NMFS does not anticipate

that shortnose sturgeon, or right, humpback, or fin whales will be injured by any collisions with the dredge vessels.

#### **Estimating the Number of Turtles Taken in Dredging Activities**

NMFS has anticipated the amount of incidental take that may occur during the proposed dredging activities for a range of dredged material quantities. The amount of incidental take will likely be dependent on the magnitude of the project, but as it is difficult to know the exact amount of material that will be dredged in any given year in the future, the anticipated take amount was determined for several different magnitudes of dredge material. As stated previously, the project to deepen the two channels could take up to four years to complete. However, it is possible that this dredging could be completed in less than one year. A large hopper dredge can potentially remove up to 20,000 cy in one day. If this were the case, dredging of 5 million cy would be completed in 250 days. ACOE has indicated that, for this project, this is unlikely due to possible funding constraints. However, because the potential exists to dredge this quantity in one year, the NMFS has set the upper limit of the amount of material to be dredged in the Thimble Shoal and Atlantic Ocean Channels annually used to determine take as 5 million cy. Based on previous dredging activities and takes in the project area, NMFS anticipates that up to 18 loggerhead and 4 Kemp's ridley sea turtles could be entrained during Thimble Shoal and Atlantic Ocean Channels dredging operations that involve removing up to 5 million cy of material. For dredging of the Thimble Shoal and Atlantic Ocean Channels that will remove up to 3 million cy in one or both of the channels in any given year, NMFS anticipates that up to 10 loggerhead and 2 Kemp's ridley sea turtles could be entrained. NMFS further anticipates that 4 loggerhead and 1 Kemp's ridley sea turtle could be entrained during dredging activities that combined will remove up to 1 million cy in any given year in the Thimble Shoal and Atlantic Ocean Channels.

This anticipated take level considered the level of previous sea turtle takes in Thimble Shoal Channel, the previous incidental take levels for other dredging projects in the vicinity of the action area including Cape Henry, York Spit, York River entrance, and Rappahannock Shoal Channels maintenance dredging (which would dredge up to 5 million cy of material) and the Virginia Beach Project (which would dredge up to 2.7 million cy of material), and the anticipated magnitude of dredging. While decomposed turtle parts are considered to be takes, NMFS is most concerned with the takes that appeared to be fresh dead sea turtles and therefore directly attributable to the dredging activities. Thus, the anticipated level of take refers to those turtles which NMFS confirms as freshly dead.

Due to their rare occurrence in the action area, NMFS does not anticipate shortnose sturgeon to be taken regardless of the time of the year the dredging occurs. If in the future, new information suggests otherwise, NMFS will re-assess the anticipated amount of shortnose sturgeon take during these maintenance dredging and deepening operations.

*Loggerhead sea turtles.* Like other long-lived sea turtles, loggerheads delay maturity to allow individuals to grow larger and produce more offspring. As discussed in the Environmental Baseline section, more offspring may compensate for the high natural mortality in the early life stages; i.e., mortality rates of eggs and hatchling are generally high and decrease with age and growth. The risks of delayed maturity are that annual survival of the later life stages must be high in order for the population to grow. Studies demonstrate that population growth is highly sensitive to changes in annual survival of the juvenile and adult stages. Crouse (1999) reports, "Not only have large juveniles already survived many mortality factors and have a high reproductive value, but there are more large juveniles than adults in the population. Therefore, relatively small changes in the annual survival rate impact a large segment of the population, magnifying the effect."

The loggerhead sea turtles in the action area are likely to represent differing proportions of the five western Atlantic subpopulations. Although the northern nesting subpopulation produces about 9 percent of the total loggerhead nests, they comprise more of the loggerhead sea turtles found in foraging areas from the northeastern U.S. to Georgia: between 25 and 59 percent of the loggerhead sea turtles in this area are from the northern subpopulation (Sears 1994, Norrgard 1995, Sears et al. 1995, Rankin-Baransky 1997, Bass et al. 1998). The northern subpopulation may be experiencing a significant decline (2.5 - 3.2% for various beaches) due to a combination of natural and anthropogenic factors, demographic variation, and a loss of genetic viability. As discussed in the status of the species section, it is possible that most of the loggerheads which may be taken during the ACOE's proposed dredging activities may originate from the northern subpopulation of loggerheads. Conversely, turtles originating from the southern subpopulation could likewise be taken in large numbers.

Based on previous dredging activities which have employed the same protocols proposed for use by the ACOE for dredging during warmer months, the magnitude of the project, and previous levels of incidental take in Virginia channels, NMFS anticipates up to 18 loggerheads and 4 Kemp's ridleys could be entrained, seriously injured, or killed in any given year during deepening operations in which up to 5 million cy of material may be removed. For maintenance dredging involving up to 3 million cy of material in one or both of the channels, NMFS anticipates that up to 10 loggerhead and 2 Kemp's ridley sea turtles could be taken. NMFS further anticipates that 4 loggerhead and 1 Kemp's ridley sea turtle could be entrained during maintenance dredging activities that will remove up to 1 million cy in any given year in one or both of the channels considered in this opinion.

The death of up to 18 loggerheads during the course of maintenance dredging in these channels would represent a loss of less than 0.49 percent of the estimated number of nesting females in the northern subpopulation. This level of take represents the high end of the spectrum for the proposed project because typical deepening or



maintenance dredging would not likely involve the maximum amount of material for each channel in the same year. If 10 loggerheads were killed during the course of deepening or maintenance dredging in these channels, this would represent a loss of less than 0.27 percent of the estimated number of nesting females in the northern subpopulation, and if 4 loggerheads were killed, 0.1 percent of the estimated number of nesting females in the northern subpopulation would be lost. These are conservative estimates, however, since the loss of loggerhead turtles during these dredging activities are not likely limited to adult females, the only segment of the population, or subpopulation, for which NMFS has any population estimates. Although unlikely to occur, a worse case scenario could occur if all of the loggerheads killed were juvenile females from the northern subpopulation. It is more likely that some turtles taken by dredging activities will be from the northern subpopulation and some from the southern subpopulation.

Even if all of the loggerhead turtles anticipated to be entrained and killed were juvenile or reproductive females from the northern subpopulation, the loss of up to 18 loggerheads during the annual maintenance dredging of the Thimble Shoal and Atlantic Ocean Channels is not anticipated to have a detectable effect on the numbers or reproduction of the affected subpopulation, and therefore is not expected to appreciably reduce the likelihood of survival and recovery of the species. Again note that this maximum magnitude of take is not anticipated to occur on a regular basis, but instead, the level of dredging (and thus incidental take) is likely to be smaller in any given year.

*Kemp's ridley sea turtles.* The biology of Kemp's ridleys also suggests that losses of juvenile turtles can have a magnified effect on the survival of this species. The death of 4 Kemp's ridley sea turtles during the course of annual dredging in the channels considered in this opinion would represent a loss of less than 0.13 percent of the population. This level of take would represent the high end of the spectrum for the proposed project because typical deepening or maintenance dredging would not likely involve the maximum amount of material for each channel in the same year. If 2 Kemp's ridleys were killed during the course of dredging in these channels, this would represent a loss of less than 0.07 percent of the population, and if 1 Kemp's ridley was killed, 0.03 percent of the estimated number of nesting females in the population would be lost. Similar to information available for loggerheads, these are conservative estimates since the loss of Kemp's ridley sea turtles during these dredging activities are not likely limited to adult females, the only segment of the population for which NMFS has any population estimates. Although unlikely to occur, a worse case scenario could occur if all Kemp's ridleys killed were juvenile females. Even if all Kemp's ridley sea turtles anticipated to be entrained and killed were reproductive females, this loss is not anticipated to have a detectable effect on the numbers or reproduction of the affected population and therefore is not expected to appreciably reduce the likelihood of survival and recovery of the species.

**In summary**, this biological opinion considered the effects of dredging in the Thimble Shoal Channel and Atlantic Ocean Channel from April to November in order to accurately assess the impacts to listed species. The primary concern for sea turtles and shortnose sturgeon is entrainment in the draghead of the hopper dredge, while the main concern for endangered whales involves the potential for vessel collisions.

Sea turtle takes have occurred in the action area with the same type of hopper dredge and operational protocol as will be employed in the deepening and maintenance projects. In July and August 2000, three turtles were taken in a hopper dredge during Thimble Shoal Channel maintenance dredging. From August 7 to November 20, 2001, dredging in Thimble Shoal Channel encountered 15 instances of turtle takes during the dredging operations. During this time, in which turtles were documented during the dredge operations, only six were considered to be fresh dead turtles. The remainder were decomposed turtle flippers and/or carapace parts. As of October 4, 2001, 9 loggerhead turtles and 3 Kemp's ridleys were captured and relocated during trawling operations. Additionally, in nearby Cape Henry Channel, on September 26, 2001, a fresh loggerhead turtle was taken during dredging and on October 10, 2001, a fresh Kemp's ridley turtle was found in the forward port basket. After the take of these two turtles, measures were initiated by the ACOE to minimize the take of additional sea turtles, but on October 17, another loggerhead turtle was taken during dredging activities.

As the deepening operations and future maintenance dredging in the channels could involve removing a range of dredge material, NMFS assessed the project's impacts on listed species and the anticipated level of incidental take for three different magnitudes of dredge material. As stated previously, the project to deepen the two channels could take up to four years to complete. However, it is possible that this dredging could be completed in less than one year. A large hopper dredge can remove up to 20,000 cy in one day. If this were the case, dredging of 5 million cy would be completed in 250 days. ACOE has indicated that, for this project, this is unlikely due to possible funding constraints. However, because the potential exists to dredge this quantity in one year, the NMFS has set the upper limit of the dredging range as 5 million cy. Based on previous dredging activities, NMFS anticipates that up to 18 loggerheads and 4 Kemp's ridleys could be taken in the dredging operations involving up to 5 million cy of material. For dredging involving up to 3 million cy of material in one or both of the channels, NMFS anticipates that up to 10 loggerhead and 2 Kemp's ridley sea turtles could be taken. NMFS further anticipates that 4 loggerhead and 1 Kemp's ridley sea turtle could be entrained during maintenance dredging activities that will remove up to 1 million cy in one or both of the channels in any given year. Due to the nature of the injuries expected by entrainment, most of the turtles are expected to die. These estimations of incidental take are based upon the number of turtles previously taken during dredging in the Cape Henry and Thimble Shoal Channels, the incidental take for sea turtles designated in previous biological opinions, and the amount of

material to be dredged for the channels considered in this opinion.

Seasonal differences in the potential for interactions with shortnose sturgeon cannot be predicted with the available data. However, due to the low occurrence of this species in the action area and its behavior, NMFS does not anticipate shortnose sturgeon to be entrained by the dredging activities, physically struck by the dredge vessel, or affected by any local reductions in prey.

Although right, humpback, and fin whales may be affected by the vessels transiting the action area during the disposal phase of these operations, the potential for collisions with these large whales, or with smaller turtles, is greatly reduced by the speed at which the vessels will be traveling and the ACOE's proposed practice of maintaining a bridge watch. NMFS does not expect right, humpback, or fin whales, or leatherback, loggerhead, green, Kemp's ridley, or hawksbill turtles, to be involved in collisions with vessels involved with the disposal operations associated with this project.

#### **CUMULATIVE EFFECTS**

Cumulative effects, as defined in the ESA, are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation. Future federal actions that are unrelated to the proposed action are not considered in this section because they require separate consultation pursuant to section 7 of the ESA.

Natural mortality of endangered species, including disease (parasites) and predation, occurs in Mid-Atlantic waters. In addition to dredging activities, sources of human-induced mortality and/or harassment of listed species in the action area include incidental takes in state-regulated fishing activities, private vessel interactions, marine debris and/or contaminants.

Future commercial fishing activities in state waters may take several protected species. However, it is not clear to what extent these future activities would affect listed species differently than the current state fishery activities described in the Environmental Baseline section. The Atlantic Coastal Cooperative Statistics Program (ACCSP), when implemented, is expected to provide information on takes of protected species in state fisheries and systematically collected fishing effort data which will be useful in monitoring impacts of the fisheries. NMFS expects these fisheries to continue in the future.

As noted in the Environmental Baseline section, private vessel activities in the action area may adversely affect listed species in a number of ways, including entanglement, boat strike, or harassment. It is not possible to predict whether additional impacts from these private activities will occur in the future. In other areas of the Northeast, various initiatives have been planned to expand or establish high-speed ferry service. At this time, NMFS is not aware

of high-speed ferry services planned for the action area. NMFS and other member agencies of the NEIT will continue to monitor the development of the high-speed vessel industry and its potential threats to listed species and critical habitat.

Excessive turbidity due to coastal development and/or construction sites could also influence sea turtle foraging ability. As mentioned previously, turtles are not very easily affected by changes in water quality or increased suspended sediments, but if these alterations make habitat less suitable for turtles and hinder their capability to forage, eventually they would tend to leave or avoid these less desirable areas (Ruben and Morreale 1999).

Marine debris (e.g., discarded fishing line or lines from boats) can entangle turtles in the water and drown them. Turtles commonly ingest plastic or mistake debris for food, as observed with the leatherback sea turtle. The leatherback's preferred diet includes jellyfish, but similar looking plastic bags are often found in the turtle's stomach contents (Magnuson et al. 1990).

Sources of contamination in the action area include atmospheric loading of pollutants (e.g., PCBs), stormwater runoff from coastal development, runoff into rivers emptying into the bays, groundwater discharges, and river input and runoff. Chemical contamination may have an effect on listed species reproduction and survival. While the effects of contaminants on sea turtles is relatively unclear, pollution may be linked to the fibropapilloma virus that kills many turtles each year (NMFS 1997). If pollution is not the causal agent, it may make sea turtles more susceptible to disease by weakening their immune systems.

#### **INTEGRATION AND SYNTHESIS OF EFFECTS**

NMFS has determined that the ACOE's deepening and maintenance dredging of the Thimble Shoal Channel and Atlantic Ocean Channel could adversely affect loggerhead, leatherback, green, Kemp's ridley, and hawksbill sea turtles, shortnose sturgeon, and right, humpback, and fin whales by physically entraining them in the dredge, colliding with them during vessel operations, and/or removing and altering the availability of the prey resources they utilize.

As the deepening operations and future maintenance dredging in the channels could involve removing a range of dredge material, NMFS assessed the project's impacts on listed species and the anticipated level of incidental take for three different magnitudes of dredge material. As stated previously, the project to deepen the two channels could take up to four years to complete. However, it is possible that this dredging could be completed in less than one year. A large hopper dredge can remove up to 20,000 cy in one day. If this were the case, dredging of 5 million cy would be completed in 250 days. ACOE has indicated that, for this project, this is unlikely due to possible funding constraints. However, because the potential exists to dredge this quantity in one year, the NMFS has set the upper limit of the

range used to determine take as 5 million cy. Based on previous dredging activities, NMFS anticipates that up to 18 loggerheads and 4 Kemp's ridleys could be taken in the dredging operations involving up to 5 million cy of material. For dredging involving up to 3 million cy of material in one or both of the channels, NMFS anticipates that up to 10 loggerhead and 2 Kemp's ridley sea turtles could be taken. NMFS further anticipates that 4 loggerhead and 1 Kemp's ridley sea turtle could be entrained during dredging activities that will remove up to 1 million cy in one or both of the channels in any given year. Due to their rare occurrence in the action area, and/or size and vulnerability to entrainment, NMFS does not anticipate right, humpback, or fin whales, or shortnose sturgeon to be taken by the dredging operations.

While operational measures should be implemented to minimize the take of sea turtles to the extent possible, the loss of a maximum of 18 loggerhead and 4 Kemp's ridley sea turtles during maintenance dredging would represent a small percentage of these populations. This is also the worse case scenario, as dredging activities are not likely to involve the maximum amount of dredged material stated in the project description section (and thus incidental take) during this project or in any given year in the future. It is probable that a smaller amount of dredging will occur. Further, the estimation of the amount of take on the population is conservative since the loss of turtles during these dredging activities are not likely limited to adult females, the only segment of the population, or subpopulation, for which NMFS has any population estimates. Even if all of the turtles anticipated to be entrained and killed were juveniles or reproductive females, NMFS does not anticipate these losses to have a detectable effect on the numbers or reproduction of the affected population or subpopulation, and therefore is not expected to appreciably reduce the likelihood of survival and recovery of loggerhead, Kemp's ridley, or green sea turtles.

Although dredge vessels could collide with sea turtles or large whales, the ACOE has initiated a bridge watch protocol which NMFS believes effectively reduces the potential for collisions between turtles and whales with operating dredges and dredges transiting to the pumping station. The physical removal of sediments and associated epifauna from the dredge sites could reduce the availability of prey in the dredged areas, but NMFS believes these reductions will be localized and foraging turtles and shortnose sturgeon will not be limited by the reductions.

## CONCLUSION

After reviewing the best available information on the status of endangered and threatened species under NMFS jurisdiction, the environmental baseline for the action area, the effects of the action, and the cumulative effects, it is NMFS' biological opinion that the dredging operations in the Thimble Shoal Channel and Atlantic Ocean may adversely affect but are not likely to jeopardize the continued existence of the right, humpback, or fin whale; loggerhead,

leatherback, Kemp's ridley, green, or hawksbill sea turtle; or shortnose sturgeon. Because no critical habitat is designated in the action area, none will be affected by the project.

#### **INCIDENTAL TAKE STATEMENT**

Section 9 of the ESA and Federal regulations pursuant to section 4(d) of the ESA prohibit the take of endangered and threatened species, respectively without special exemption. Take is defined as to harass, harm, pursue, hunt, shoot, wound, kill, trap, capture or collect, or to attempt to engage in any such conduct. Harm is further defined by NMFS to include any act which actually kills or injures fish or wildlife. Such an act may include significant habitat modification or degradation that actually kills or injures fish or wildlife by significantly impairing essential behavioral patterns including breeding, spawning, rearing, migrating, feeding, or sheltering. Harass is defined by FWS as intentional or negligent actions that create the likelihood of injury to listed species to such an extent as to significantly disrupt normal behavior patterns which include, but are not limited to, breeding, feeding or sheltering. Incidental take is defined as take that is incidental to, and not the purpose of, the carrying out of an otherwise lawful activity. Under the terms of section 7(b)(4) and section 7(o)(2), taking that is incidental to and not intended as part of the agency action is not considered to be prohibited under the ESA provided that such taking is in compliance with the terms and conditions of this Incidental Take Statement.

The measures described below are non-discretionary, and must be undertaken by ACOE so that they become binding conditions for the exemption in section 7(o)(2) to apply. ACOE has a continuing duty to regulate the activity covered by this Incidental Take Statement. If ACOE (1) fails to assume and implement the terms and conditions or (2) fails to adhere to the terms and conditions of the Incidental Take Statement through enforceable terms, the protective coverage of section 7(o)(2) may lapse. In order to monitor the impact of incidental take, ACOE must report the progress of the action and its impact on the species to the NMFS as specified in the Incidental Take Statement [50 CFR §402.14(i)(3)].

#### **Amount or extent of take**

While it is difficult to ascertain future take of sea turtles, NMFS based the anticipated take levels on previous sea turtle takes during 2000/2001 Thimble Shoal Channel dredging and 2001 Cape Henry Channel maintenance dredging, the level of take anticipated in previous biological opinions, the distribution and number of sea turtles in the Chesapeake Bay, and the magnitude of and operational measures employed by the dredging projects. The anticipated level of take for dredging in Thimble Shoal and Atlantic Ocean Channels was determined based upon the greatest estimated amount of material to be dredged during deepening operations and the maximum and minimum amounts to be dredged in both channels during maintenance operations:

- During any given year, if the amount of dredged material to be removed is less than or equal to 5 million cy, NMFS anticipates that dredging in the two channels may result in the observed take of 18 loggerhead and 4 Kemp's ridley sea turtles.
- During any given year, if the amount of dredged material to be removed is less than or equal to 3 million cy, NMFS anticipates that dredging operations in the two channels may result in the observed take of 10 loggerhead and 2 Kemp's ridley sea turtles.
- During any given year, if the amount of dredged material to be removed is less than or equal to 1 million cy, NMFS anticipates that dredging operations in the two channels may result in the observed take of 4 loggerhead and 1 Kemp's ridley sea turtle.

The incidental level of turtle take is anticipated to be fresh dead. No incidental take for hawksbill or leatherback sea turtles is anticipated as these species are relatively unlikely to be prevalent in the action area and interactions with the dredge are expected to be low.

NMFS also expects that the deepening operations and maintenance dredging may take an additional unquantifiable number of previously dead sea turtle parts. While decomposed animals taken in Federal operations are considered to be takes, as the possession of a listed species is considered a take, NMFS recognizes that decomposed sea turtles may be taken in dredging operations that may not necessarily be related to the dredging activity itself. Theoretically, if dredging operations are conducted properly, no takes of sea turtles should occur as the turtle draghead deflector should push the turtles to the side and the suction pumps should be turned off whenever the dredge draghead is away from the substrate. However, due to certain environmental conditions (e.g., rocky bottom, uneven substrate), the dredge draghead may periodically lift off the bottom and entrain previously dead sea turtles that may be on the bottom through the high level of suction. A sea turtle take may not be considered related to dredge operations and count towards the above referenced anticipated take level if the condition of the specimen is in a severely decomposed or advanced state of decay and if the specimen is a turtle part. Provided that NMFS concurs with the ACOE's determination regarding the stage of decomposition, condition of the specimen, and likely cause of mortality, the take will not be attributed to the incidental take level for this project.

Additionally, NMFS also expects that relocation trawling in either of the channels may take an additional unquantifiable number of live loggerhead and Kemp's ridley sea turtles. As stated in the reasonable and prudent measures and terms and conditions of this Incidental Take Statement, relocation trawling may occur under certain circumstances prior to dredging. This trawling will result in sea turtle takes, but these takes are not expected to be lethal due to the short duration of

the tow times (15 to 30 minutes per tow). While relocating sea turtles may invoke a degree of stress on the animals, the level of stress should be minimized by an expedited and proper handling time. Additionally, the capture of a live turtle in a trawl is likely less harmful to the species as compared to a sea turtle being entrained in a dredge draghead. Thus, an unquantifiable number of live loggerhead and Kemp's ridley sea turtles are anticipated to be taken during any relocation trawling deemed necessary during dredging in both channels.

The distribution of shortnose sturgeon in Virginia waters is relatively unknown and the furthest recorded capture of shortnose sturgeon is in the mouth of the York River. While NMFS must employ a conservative approach to management and consider the species to be in the area, it is difficult to determine the abundance of this species in the action area and how the proposed project will impact shortnose sturgeon. Due to the lack of information about distribution in Virginia waters and the low likelihood that the dredge activities will interact with shortnose sturgeon, no incidental take will be designated for shortnose sturgeon at this time. No incidental take of any listed marine mammal is anticipated for this project.

#### ***Effect of the take***

In the accompanying biological opinion, NMFS evaluated the effects of this level of anticipated take on the above listed species. NMFS has determined that these interactions, should they occur, are not likely to jeopardize the continued existence of these species, or destruction or adverse modification of critical habitat.

#### ***Reasonable and Prudent Measures***

NMFS has determined that the following reasonable and prudent measures are necessary and appropriate to minimize impacts of incidental take of sea turtles. Although no takes of other listed species are authorized at this time, these measures must be undertaken in a manner which ensures detection of takes of these other species so that appropriate reinitiation action can be taken.

1. ACOE shall ensure that between April 1 and November 30, hopper dredges are outfitted with state-of-the-art sea turtle deflectors on the draghead and operated in a manner that will reduce the risk of interactions with sea turtles which may be present in the dredge area.
2. ACOE shall ensure that dredges are equipped and operated in a manner that provides endangered/threatened species observers with a reasonable opportunity for detecting interactions with listed species and that provides for handling, collection, and resuscitation of turtles injured during project activity. Full cooperation with the endangered/threatened species observer program is essential for compliance with the ITS.
3. ACOE must enact measures that would reduce the number of sea turtles in the dredging channel so that the possibility of entrapment would be minimized.



4. ACOE must develop and follow a system to provide timely reporting to the NMFS on any takes of protected species.

#### **Terms and Conditions**

In order to be exempt from the prohibitions of Section 9 of the ESA, the ACOE must comply with the following terms and conditions, which implement the reasonable and prudent measures described above and outline required reporting/monitoring requirements. These terms and conditions are non-discretionary.

1. If dredging occurs between April 1 and November 30, hopper dredges must be equipped with the rigid deflector draghead as designed by the ACOE Waterways Experimental Station (WES), or if that is unavailable, a rigid sea turtle deflector attached to the draghead. Deflectors must be checked and/or adjusted by a designated expert prior to a dredge operation to insure proper installment and operation during dredging. The deflector must be checked after every load throughout the dredge operation to ensure that proper installation is maintained. Since operator skill is important to the effectiveness of the WES-developed draghead, operators must be properly instructed in its use. Dredge inspectors must ensure that all measures to protect sea turtles are being followed during dredge operations.
2. If dredging occurs during the period of April 1 through November 30, the ACOE must adhere to the attached "Monitoring Specifications for Hopper Dredges" with trained NMFS-approved sea turtle observers, in accordance with the attached "Observer Protocol" and "Observer Criteria" (Appendix B). NMFS-approved observers must be required on hopper dredges once surface waters reach or exceed 11° C, or during the period of April 1 through November 30 (whichever occurs first), of any year to monitor the hopper spoil, overflow, screening and dragheads for sea turtles and shortnose sturgeon and their remains.
3. As with any incidental take, if a decomposed turtle or turtle part is taken in dredging operations, an incident report must be completed and the specimen must be photographed (Appendix G). The ACOE must submit the incident report for the decomposed turtle part, as well as photographs, to NMFS and request concurrence that this take should not be attributed to the Incidental Take Statement. NMFS will have the final say in determining if the take should count towards the Incidental Take Statement.
4. The ACOE must ensure that all contracted personnel involved in operating hopper dredges receive thorough training on measures of dredge operation that will minimize takes of sea turtles. Training shall include measures discussed in Appendix B. It shall be the goal of each hopper dredging operation to establish operating procedures that are consistent with those that have been used during hopper dredging in other regions of the coastal United States, and which have proven effective in reducing

turtle/dredge interactions. Therefore, Glynn Banks (ACOE, Waterways Experiment Station, Vicksburg, MS, [601] 634-3597), or a person with a similar level of expertise on this matter, shall be involved both in dredge operation training, and installation, adjustment and monitoring of the rigid deflector draghead assembly.

5. It is unlikely that sea turtles will survive entrainment in a hopper dredge, as the turtles found in the dragheads are almost always dead, dying, or dismantled. However, a few turtles have escaped hopper dredges without apparent injuries. A sub-adult loggerhead was removed from dredge gear unharmed in Savannah, Georgia and an occasional small green turtle has been known to survive (Slay 1995, Magnuson et al. 1990). The procedures for handling live sea turtles are outlined in case the unlikely event should occur. All permit holders must follow the sea turtle handling techniques specified in Appendix B-II-E and Appendix C.
6. A sea turtle trawling and relocation survey must be initiated following the take of two (2) turtles (any species) in a 24-hour time period or four (4) turtles within a two month period, or in other circumstances that NMFS deems appropriate. All trawls must follow the standard protocol developed and used by the ACOE South Atlantic Division (Appendix D). The trawling and relocation survey must be initiated within 24 hours of the incidental take or the ACOE must suspend dredging operations until such trawling can be initiated. Trawling should continue for at least 5 consecutive days, unless precluded by inclement weather, after which NMFS may continue or suspend the survey. After the trawling survey is completed, the NMFS and ACOE shall immediately discuss the results of the trawling to determine if additional measures are needed to relocate turtles found in the channel.
7. The results of each turtle take from the trawling survey must be recorded on the Sea Turtle Tagging Data Report (Appendix E). The preliminary results of the trawling survey must be submitted to NMFS immediately after the survey is completed (e.g., after 5 days) so that NMFS can determine if additional trawling is warranted. A final report summarizing the results of the trawling and any takes of listed species must be submitted to the ACOE and NMFS within 30 working days of completion of the trawling survey.
8. A final report summarizing the results of the dredging and any takes of listed species must be submitted to the ACOE and NMFS (at the addresses specified in Appendix B) within 30 working days of completion of each cycle of the project.
9. Vessels must comply with the ESA 500-yard approach regulations for right whales. To minimize risks from vessel operations around other listed species, the dredge vessel must not intentionally approach listed species closer than 100 yards when in transit. When species are present vessels must, except when

precluded by safety requirements, follow the advice of the onboard NMFS-approved observer to avoid collisions.

10. If listed species are present during dredging or material transport, vessels transiting the area must post a watch, avoid intentional approaches closer than 100 yards (or 500 yards in the case of right whales) when in transit, and reduce speeds to below 4 knots.
11. If the take of loggerhead sea turtles approaches 1/2 of the permitted incidental take level (e.g., 9 turtles for 5 million cy) during any project cycle, the ACOE must immediately contact NMFS at (978) 281-9112 to review the situation and determine whether any new management measures should be implemented to prevent the total incidental take level from being reached.
12. If warranted by ACOE, beach quality sand dredged from the Channels may be deposited as part of a beach renourishment activity. When decided upon, the ACOE must inform NMFS that this type of disposal has been selected.

NMFS anticipates that no more than 18 loggerheads and 4 Kemp's ridleys could be taken during the dredging of the Thimble Shoal and Atlantic Ocean Channels involving up to 5 million cy of material. For dredging involving up to 3 million cy of material in the Thimble Shoal and/or Atlantic Ocean Channels, NMFS anticipates that no more than 10 loggerhead and 2 Kemp's ridley sea turtles could be taken. NMFS further anticipates that no more than 4 loggerhead and 1 Kemp's ridley sea turtle could be entrained during dredging activities that will remove up to 1 million cy in one or both of the channels considered in this opinion in any given year. The reasonable and prudent measures, with their implementing terms and conditions, are designed to minimize the impact of incidental take that might result from the proposed action. If, during the course of the project, this level of incidental take is exceeded, the additional level of take would represent new information requiring reinitiation of consultation and review of the reasonable and prudent measures provided above.

#### CONSERVATION RECOMMENDATIONS

In addition to Section 7(a)(2), which requires agencies to ensure that proposed projects will not jeopardize the continued existence of listed species, Section 7(a)(1) of the ESA places a responsibility on all federal agencies to "utilize their authorities in furtherance of the purposes of this Act by carrying out programs for the conservation of endangered species." Conservation Recommendations are discretionary activities designed to minimize or avoid adverse effects of a proposed action on listed species or critical habitat, to help implement recovery plans, or to develop information.

1. Where weather/sea conditions permit, hopper dredging should be conducted from December 1 to March 31, or when surface water

temperatures are below 11° C, when sea turtles are most likely not present in Virginia coastal waters.

2. When endangered species observers are required on hopper dredges (April 1 to November 30), 100% overflow screening is recommended. While monitoring 100% of the inflow screening is required as a term and condition of this project's Incidental Take Statement, observing 100% of the overflow screening would ensure that any takes of sea turtles are detected and reported.
3. To facilitate future management decisions on listed species occurring in the action area, ACOE should maintain a database mapping system to: 1) create a history of use of the geographic areas affected; and, 2) document endangered/threatened species presence/interactions with project operations.
4. New approaches to sampling for turtle parts should be investigated.
5. ACOE should investigate, support, and/or develop additional technological solutions to further reduce the potential for sea turtle takes in hopper dredges.
6. Because presence of shortnose sturgeon in the lower Chesapeake Bay could substantially affect the conclusions in future Section 7 consultations, the ACOE should contact the U.S. Fish and Wildlife Service to collaborate on sturgeon research efforts in Virginia.
7. For every year when dredging activities are planned for winter months, the ACOE Project Manager should contact the marine mammal staff at the Virginia Marine Science Museum in order to obtain information on whale sightings in the area.

#### REINITIATION OF CONSULTATION

This concludes formal consultation on the dredging activities conducted in Thimble Shoal Channel and Atlantic Ocean Channel. As provided in 50 CFR 402.16, reinitiation of formal consultation is required where discretionary federal agency involvement or control over the action has been retained (or is authorized by law) and if: (1) the amount or extent of incidental take is exceeded; (2) a new species is listed or critical habitat designated that may be affected by the action; (3) the agency action is subsequently modified in a manner that causes an effect to the listed species or critical habitat not considered in this opinion; or (4) new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered. In instances where the amount or extent of incidental take is exceeded, the ACOE must immediately request reinitiation of formal consultation.

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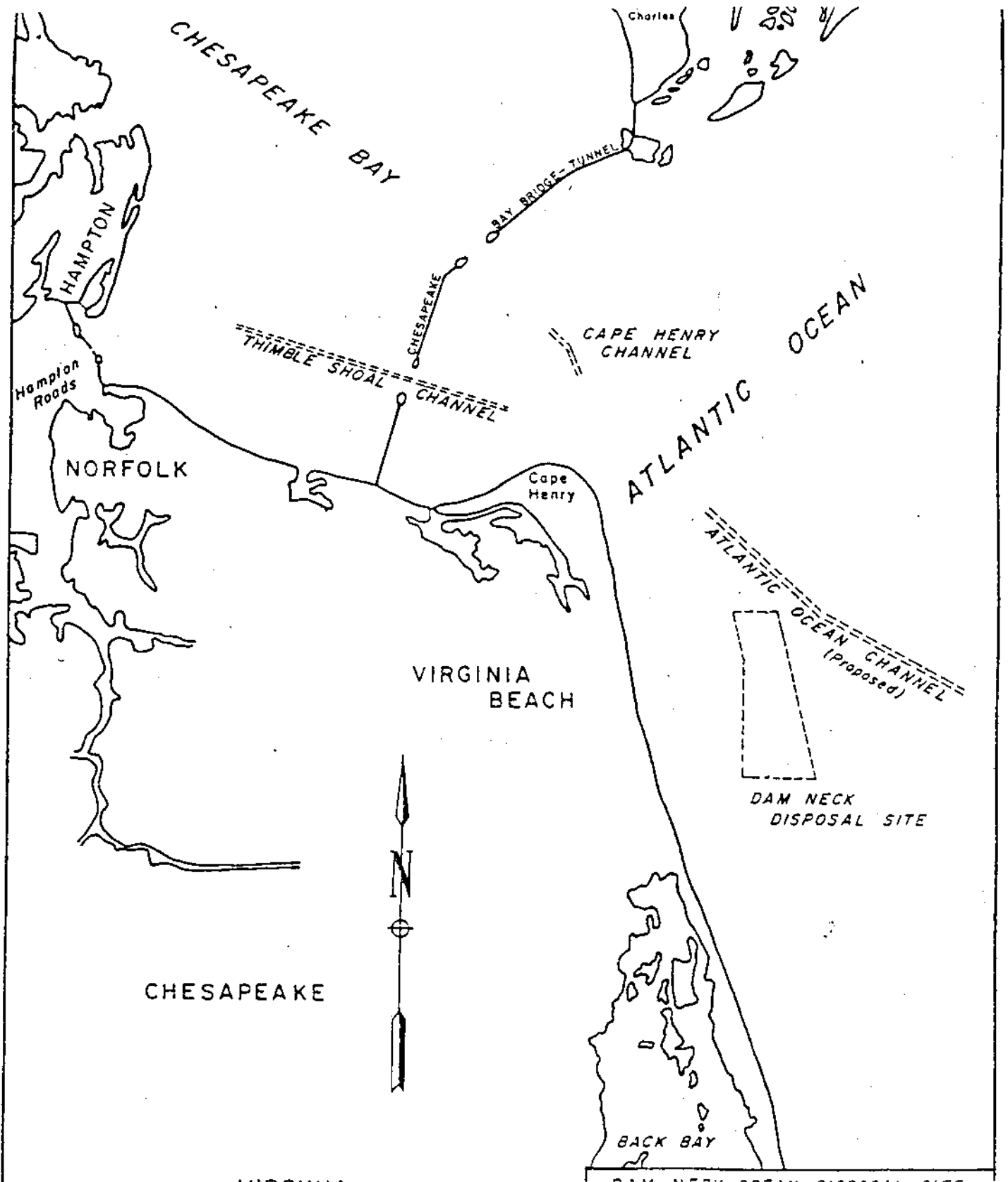
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APPENDIX A

Map of Project Location

Thimble Shoal Channel and Atlantic Ocean Channel



## APPENDIX B.

### MONITORING SPECIFICATIONS FOR HOPPER DREDGES

#### I. EQUIPMENT SPECIFICATIONS

##### A. Baskets or screening

Baskets or screening must be installed over the hopper inflows with openings no smaller than 4 inches by 4 inches to provide 100% coverage of all dredged material and shall remain in place during all dredging operations between April 1 and November 30 of any calendar year. Baskets/screening will allow for better monitoring by observers of the dredged material intake for sea turtles and their remains. The baskets or screening must be safely accessible to the observer and designed for efficient cleaning.

##### B. Draghead

The draghead of the dredge shall remain on the bottom **at all times** during a pumping operation, except when:

- 1) the dredge is not in a pumping operation, and the suction pumps are turned completely off;
- 2) the dredge is being re-oriented to the next dredge line during borrow activities; and
- 3) the vessel's safety is at risk (i.e., the dragarm is trailing too far under the ship's hull).

At initiation of dredging, the draghead shall be placed on the bottom during priming of the suction pump. If the draghead and/or dragarm become clogged during dredging activity, the pump shall be shut down, the dragarms raised, whereby the draghead and/or dragarm can be flushed out by trailing the dragarm along side the ship. If plugging conditions persist, the draghead shall be placed on deck, whereby sufficient numbers of water ports can be opened on the draghead to prevent future plugging.

Upon completion of a dredge track line, the drag tender shall:

- 1) throttle back on the RPMs of the suction pump engine to an idling speed (e.g., generally less than 100 RPMs) **prior to** raising the draghead off the bottom, so that no flow of material is coming through the pipe into the dredge hopper. Before the draghead is raised, the vacuum gauge on the pipe should read zero, so that no suction exists both in the dragarm and draghead, and no suction force exists that can impinge a turtle on the draghead grate;
- 2) hold the draghead firmly on the bottom with no flow conditions for approximately 10 to 15 seconds before raising the draghead; then, raise the draghead quickly off the bottom and up to a mid-water

column level, to further reduce the potential for any adverse interaction with nearby turtles;

- 3) re-orient the dredge quickly to the next dredge line; and
- 4) re-position the draghead firmly on the bottom prior to bringing the dredge pump to normal pumping speed, and re-starting dredging activity.

#### C. Floodlights

Floodlights must be installed to allow the NMFS-approved observer to safely observe and monitor the baskets or screens.

#### D. Intervals between dredging

Sufficient time must be allotted between each dredging cycle for the NMFS-approved observer to inspect and thoroughly clean the baskets and screens for sea turtles and/or turtle parts and document the findings. Between each dredging cycle, the NMFS-approved observer should also examine and clean the dragheads and document the findings.

### II. OBSERVER PROTOCOL

#### A. Basic Requirement

A NMFS-approved observer with demonstrated ability to identify sea turtle species must be placed aboard the dredge(s) being used; starting immediately upon project commencement to monitor for the presence of listed species and/or parts being entrained or present in the vicinity of dredge operations.

#### B. Duty Cycle

Beginning April 1, one NMFS-approved observer is to be onboard for every week of the dredging project until project completion or November 30, whichever comes first. While onboard, observers shall provide the required inspection coverage on a rotating basis of six hours on and six hours off each day. Combined monitoring periods would then represent 50% of total dredging time through the project period. If possible, the ACOE shall maintain 100% observer coverage during dredging operations in the Thimble Shoal and Atlantic Ocean Channels by employing 2 observers on board at any given time.

#### C. Inspection of Dredge Spoils

During the required inspection coverage, the trained NMFS-approved observer shall inspect the galvanized screens and baskets at the completion of each loading cycle for evidence of sea turtles or shortnose sturgeon. The Endangered Species Observation Form shall be completed for each loading cycle, whether listed species are present or not (Appendix F). If any whole turtles or shortnose sturgeon (alive or dead) or turtle or shortnose sturgeon parts are taken incidental to the project(s), Kim Damon-Randall (978) 281-9112 or Carrie McDaniel (978) 281-9388 must be contacted within 24 hours of

the take. An incident report for sea turtle/shortnose sturgeon take (Appendix G) shall also be completed by the observer and sent to Kim Damon-Randall via FAX (978) 281-9394 within 24 hours of the take. Incident reports shall be completed for every take regardless of the state of decomposition. NMFS will determine if the take should be attributed to the incidental take level, after the incident report is received. Every incidental take (alive or dead, decomposed or fresh) should be photographed. Weekly reports, including all completed load sheets, photographs, and relevant incident reports, as well as a final report, are to be submitted to the attention of Kim Damon-Randall, NMFS, Protected Resources Division, One Blackburn Drive, Gloucester, MA 01930-2298.

#### D. Information to be Collected

For each sighting of any endangered or threatened marine species (including whales as well as sea turtles), record the following information on the Endangered Species Observation Form (Appendix F):

- 1) Date, time, coordinates of vessel
- 2) Visibility, weather, sea state
- 3) Vector of sighting (distance, bearing)
- 4) Duration of sighting
- 5) Species and number of animals
- 6) Observed behaviors (feeding, diving, breaching, etc.)
- 7) Description of interaction with the operation

#### E. Disposition of Parts

If any whole turtles or shortnose sturgeon (alive or dead, decomposed or fresh) or turtle or shortnose sturgeon parts are taken incidental to the project(s), Kim Damon-Randall (978) 281-9112 or Carrie McDaniel (978) 281-9388 must be contacted within 24 hours of the take. All whole dead sea turtles or shortnose sturgeon, or turtle or shortnose sturgeon parts should be photographed and described in detail on the Incident Report of Sea Turtle/Shortnose Sturgeon Mortality (Appendix G). The photographs and reports should be submitted to Kim Damon-Randall, NMFS, Protected Resources Division, One Blackburn Drive, Gloucester, MA 01930-2298. Any dead **Kemp's ridley** sea turtles shall be photographed, placed in plastic bags, labeled with location, load number, date, and time taken, and placed in cold storage. Dead turtles or turtle parts will be further labeled as recent or old kills based on evidence such as fresh blood, odor, and length of time in water since death. Disposition of dead sea turtles/shortnose sturgeon will be determined by NMFS. Other sea turtle species (loggerhead, leatherback, or green turtles) taken either whole or in parts, or any shortnose sturgeon should be disposed of (after a photograph is taken and a reporting form has been completed) by attaching a weight to the animal and dumping the specimen at the dredge spoil disposal site. If the species is unidentifiable or if there are entrails that may have come from a turtle, the subject should be photographed, placed in plastic bags, labeled with location, load number, date and time taken, and placed in cold storage. Dead Kemp's ridley or unidentifiable species or parts will be collected by NMFS or NMFS-approved personnel (contact Kim Damon-Randall at (978) 281-9112).



Live turtles (both injured and uninjured) should be held onboard the dredge until transported as soon as possible to the appropriate stranding network personnel for rehabilitation (Appendix C). No live turtles should be released back into the water without first being checked by a qualified veterinarian or a rehabilitation facility. Virginia and Maryland stranding network members (for rehabilitating turtles) include Mark Swingle and/or Susan Barco at the Virginia Marine Science Museum [(757)437-4949], Jack Musick at the Virginia Institute of Marine Science [(804)684-7313], and Dr. Brent Whitaker and/or David Schofield of the National Aquarium in Baltimore [(410)576-3853; FAX Number: (410)576-1080]]. Mark Swingle/Susan Barco, Brent Whitaker/David Schofield, and Dana Hartley (NMFS Stranding Network Coordinator: (508) 495-2090) should also be contacted immediately for any marine mammal injuries or mortalities.

### III. OBSERVER REQUIREMENTS

Submission of resumes of endangered species observer candidates to NMFS for final approval ensures that the observers placed onboard the dredges are qualified to document takes of endangered and threatened species, to confirm that incidental take levels are not exceeded, and to provide expert advice on ways to avoid impacting endangered and threatened species. NMFS does not offer certificates of approval for observers, but approves observers on a case-by-case basis.

#### A. Qualifications

Observers must be able to:

- 1) differentiate between leatherback (*Dermochelys coriacea*), loggerhead *Caretta caretta*), Kemp's ridley (*Lepidochelys kempii*), green (*Chelonia mydas*), and hawksbill (*Eretmochelys imbricata*) turtles and their parts, and shortnose (*Acipenser brevirostrum*) and Atlantic (*Acipenser oxyrinchus oxyrinchus*) sturgeon and their parts;
- 2) handle live sea turtles and sturgeon and resuscitate and release them according accepted procedures;
- 3) correctly measure the total length and width of live and whole dead sea turtle and sturgeon species;
- 4) observe and advise on the appropriate screening of the dredge=s overflow, skimmer funnels, and dragheads; and
- 5) identify marine mammal species and behaviors.

#### B. Training

Ideally, the applicant will have educational background in marine biology, general experience aboard dredges, and hands-on field experience with the species of concern. For observer candidates who do not have sufficient experience or educational background to gain

immediate approval as endangered species observers, we note below the observer training necessary to be considered admissible by NMFS. We can assist the ACOE by identifying groups or individuals capable of providing acceptable observer training. Therefore, at a minimum, observer training must include:

- 1) instruction on how to identify sea turtles and sturgeon and their parts;
- 2) instruction on appropriate screening on hopper dredges for the monitoring of sea turtles and sturgeon(whole or parts);
- 3) demonstration of the proper handling of live sea turtles and sturgeon incidentally captured during project operations. Observers may be required to resuscitate sea turtles according to accepted procedures prior to release;
- 4) instruction on standardized measurement methods for sea turtle and sturgeon lengths and widths; and
- 5) instruction on how to identify marine mammals; and
- 6) instruction on dredging operations and procedures, including safety precautions onboard a vessel.

## APPENDIX C

### Sea Turtle Handling and Resuscitation

It is unlikely that sea turtles will survive entrainment in a hopper dredge, as the turtles found in the dragheads are usually dead, dying, or dismantled. However, the procedures for handling live sea turtles follow in case the unlikely event should occur.

*Please photograph all turtles (alive or dead) and turtle parts found during dredging activities and complete the Incident Report of Sea Turtle Take (Appendix G).*

#### Dead sea turtles

The procedures for handling dead sea turtles and parts are described in Appendix B-II-E.

#### Live sea turtles

When a sea turtle is found in the dredge gear, observe it for activity and potential injuries.

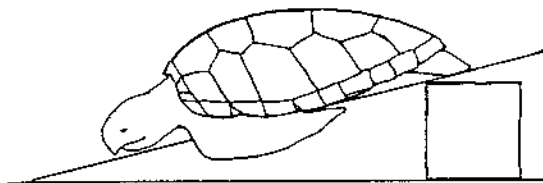
- ▶ **If the turtle is actively moving**, it should be retained onboard until evaluated for injuries by a permitted rehabilitation facility. Due to the potential for internal injuries associated with hopper entrainment, it is necessary to transport the live turtle to the nearest rehabilitation facility as soon as possible, following these steps:
  - 1) Contact the nearest rehabilitation facility to inform them of the incident. If the rehabilitation personnel cannot be reached immediately, please contact Dana Hartley, NMFS Northeast Region Stranding Coordinator, at (508) 495-2090 or Carrie McDaniel at (978) 281-9388.
  - 2) Keep the turtle shaded and moist (e.g., with a water-soaked towel over the eyes, carapace, and flippers).
  - 3) Contact the crew boat to pick up the turtle as soon as possible from the dredge (within 12 to 24 hours maximum). The crew boat should be aware of the potential for such an incident to occur and should develop an appropriate protocol for transporting live sea turtles.
  - 4) Transport the live turtle to the closest permitted rehabilitation facility able to handle such a case.

Do not assume that an inactive turtle is dead. The onset of rigor mortis and/or rotting flesh are often the only definite indications that a turtle is dead. Releasing a comatose turtle into any amount of water will drown it, and a turtle may recover once its lungs have had a chance to drain.

- ▶ **If a turtle appears to be comatose** (unconscious), contact the designated stranding/rehabilitation personnel immediately. Once the rehabilitation personnel has been informed of the incident, attempts should be made to revive the turtle at once. Sea

turtles have been known to revive up to 24 hours after resuscitation procedures have been followed. The resuscitation regulations can be found at 50 CFR 223.206(d)(1).

- Place the animal on its bottom shell (plastron) so that the turtle is right side up and elevate the hindquarters at least 6 inches for a period of 4 up to 24 hours. The degree of elevation depends on the size of the turtle; greater elevations are required for larger turtles.
- Periodically, rock the turtle gently left to right and right to left by holding the outer edge of the shell (carapace) and lifting one side about 3 inches then alternate to the other side.
- Periodically, gently conduct one of the above reflex tests to see if there is a response.
- Keep the turtle in a safe, contained place, shaded, and moist (e.g., with a water-soaked towel over the eyes, carapace, and flippers) and observe it for up to 24 hours.
- If the turtle begins actively moving, retain the turtle until the appropriate rehabilitation personnel can evaluate the animal. The rehabilitation facility should eventually release the animal in a manner that minimizes the chances of re-impingement and potential harm to the animal (i.e., from cold stunning).
- Turtles that fail to move within several hours (up to 24) must be handled in the manner described in Appendix B-II-E, or transported to a suitable facility for necropsy (if the condition of the sea turtle allows and the rehabilitation facility wants to necropsy the animal).



#### Stranding/rehabilitation contacts

- Virginia and Maryland stranding network members (for rehabilitating turtles) include Mark Swingle and/or Susan Barco at the Virginia Marine Science Museum [(757)437-4949], Jack Musick at the Virginia Institute of Marine Science [(804)684-7313], and Dr. Brent Whitaker and/or David Schofield of the National Aquarium in Baltimore [(410)576-3853; FAX Number: (410)576-1080].
- Mark Swingle/Susan Barco, Dr. Whitaker/Mr. Schofield, and Dana Hartley (NMFS Stranding Network Coordinator: (508) 495-2090) should also be contacted immediately for any marine mammal injuries or mortalities.

## APPENDIX D

### Sea Turtle Trawling and Relocation Guidelines (as derived from ACOE South Atlantic Division protocol)

#### Sea turtle trawling procedures

1. Trawling will be conducted under the supervision of a biologist approved by the NMFS. A letter of approval from NMFS will be provided prior to the commencement of trawling.
2. Any turtles captured during the survey will be measured and tagged in accordance with standard biological sampling procedures with sampling data recorded on the Sea Turtle Tagging and Relocation Report (Appendix E). Any captured sea turtles will be relocated south of the work area at least 3 miles from the location recorded on the Sea Turtle Tagging and Relocation Report.
3. The trawler will be equipped with two 60-foot nets constructed from 8-inch mesh (stretch) fitted with mud rollers and flats as specified in the Turtle Trawl Nets Specifications. Paired net tows will be made for 10 to 12 hours per day or night. Trawling will be conducted with the tidal flow using repetitive 15-30 minute (total time) tows in the channel. Tows will be made in the center, green and red sides of the channel such that the total width of the channel bottom is sampled. Positions at the beginning and end of each tow will be determined from GPS Positioning equipment. Tow speed will be recorded at the approximate midpoint of each tow.
4. Methods and equipment will be standardized including data sheets, nets, trawling direction to tide, length of station, length of tow, and number of tows per station. Water temperature measurements will be taken at the water surface each day using a laboratory thermometer. Data on each tow, including weather conditions, air temperature, wind velocity and direction, sea state-wave height, and precipitation, will be recorded on the Sea Turtle Trawling Report.
5. Before trawling begins, the necessary state permits for trawling in Virginia state waters will be obtained from the appropriate party (e.g., State of Virginia, Virginia Marine Resources Commission).

### **Turtle Trawl Nets Specifications**

**DESIGN:** 4 seam, 4 legged, 2 bridal trawl net  
**WEBBING:** 4 inch bar, 8 inch stretch  
top - 36 gauge twisted nylon dipped  
side - 36 gauge twisted nylon dipped  
bottom - 84 gauge braided nylon dipped  
**NET LENGTH:** 60 ft from cork line to cod end  
**BODY TAPER:** 2 to 1  
**WING END HEIGHT:** 6 ft  
**CENTER HEIGHT:** Dependent on depth of trawl 14 to 18 ft  
**COD END:** Length 50 meshes x 4" = 16.7 ft  
Webbing 2 inch bar, 4 inch stretch, 84 gauge braid nylon dipped, 80 meshes around, 40 rigged meshes with 1/4 x 2 inch choker rings, 1 each 2 x 4 inch at end  
cod end cover - none  
chaffing gear - none  
**HEAD ROPE:** 60 ft 2 inch combination rope (braid nylon with stainless cable center)  
**FOOT ROPE:** 65 ft 2 inch combination rope  
**LEG LINE:** top - 6 ft, bottom 6 - ft  
**FLOATS:** size - tuna floats (football style), diameter - 7 inch length - 9 inch, number - 12 each, spacing - center on top net 2 inches apart  
**MUD ROLLERS:** size 5 inch diameter 5.5 inch length, number - 22 each, spacing - 3 ft attached with 3/8 inch polypropelene rope (replaced with snap on rollers when broken)  
**TICKLER CHAINS:** NONE (discontinued- but previously used 1/4 inch x 74 ft galvanized chain)  
**WEIGHT:** 20 ft of 1/4 inch galvanized chain on each wing, 40 ft per net looped and tied  
**DOOR SIZE:** 7 ft x 40 inches (or 8 ft x 40 inches), Shoe - 1 inch x 6 inch, bridles - 3/8 inch high test chain  
**CABLE LENGTH** (bridle length, total): 7/16 inch x 240-300 ft varies with bottom conditions  
**FLOAT BALL:** none  
**LAZY LINES:** 1 inch nylon  
**PICKUP LINES:** 3/8 inch polypropelene  
**WHIP LINES:** 1 inch nylon

**APPENDIX E**  
**Sea Turtle Tagging Data Report**

(Note that any reporting form submitted for turtles taken by trawling activities related to the Thimble Shoal Channel and Atlantic Ocean Channel project should include the following information.)

Channel: \_\_\_\_\_ Date: \_\_\_\_\_  
Tow #: \_\_\_\_\_ Net (circle): Port Starboard  
Species: \_\_\_\_\_ Sex (circle): Male Female Unknown

Describe capture location and data of capture (include state, county, lat and long): \_\_\_\_\_  
\_\_\_\_\_

Describe capture method and/or type of gear in use when turtle was caught: \_\_\_\_\_  
\_\_\_\_\_

**Flipper Tag Information**

Left: \_\_\_\_\_  
Right: \_\_\_\_\_  
PIT Tag #: \_\_\_\_\_

**Species Information:** (please designate cm/m or inches.)

Weight (kg or lbs): \_\_\_\_\_  
Plastron length \_\_\_\_\_ Plastron width \_\_\_\_\_  
Straight carapace length \_\_\_\_\_ Straight carapace width \_\_\_\_\_  
Curved carapace length \_\_\_\_\_ Curved carapace width \_\_\_\_\_  
Tail length: \_\_\_\_\_ Head width: \_\_\_\_\_  
Condition of specimen/description of animal \_\_\_\_\_  
\_\_\_\_\_

**Miscellaneous:**

Blood taken: YES NO \_\_\_\_\_ # of vials  
Photos Taken: YES NO  
Recapture: \_\_\_\_\_ this effort \_\_\_\_\_ previous effort  
Organization \_\_\_\_\_  
Tagging: \_\_\_\_\_  
Personnel: \_\_\_\_\_ Phone: \_\_\_\_\_

**Turtle Release Information:**

Date: \_\_\_\_\_ Time: \_\_\_\_\_  
Lat: \_\_\_\_\_ Long: \_\_\_\_\_  
State: \_\_\_\_\_ County: \_\_\_\_\_

**Remarks:** (note if turtle was involved with tar or oil, gear or debris entanglement, wounds or mutilations, propellor damage, papillomas, tag locations, etc.)  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

ENDANGERED SPECIES OBSERVER FORM  
Thimble Shoal and Atlantic Ocean Channels Project

Date: \_\_\_\_\_  
Geographic  
Site: \_\_\_\_\_  
Location: Lat/Long \_\_\_\_\_ Vessel Name \_\_\_\_\_

Water temperature: Surface \_\_\_\_\_ Below midwater (if known) \_\_\_\_\_

Incidents involving endangered or threatened species? (Circle) Yes No  
(If yes, fill out Incident Report of Sea Turtle/Shortnose Sturgeon  
Mortality)

Observer's Name: \_\_\_\_\_  
Observer's Signature: \_\_\_\_\_

[illegible]



APPENDIX G

Incident Report of Sea Turtle/Shortnose Sturgeon Take  
Thimble Shoal and Atlantic Ocean Channels Project

Species \_\_\_\_\_ Date \_\_\_\_\_ Time (specimen found) \_\_\_\_\_

Geographic Site \_\_\_\_\_

Location: Lat/Long \_\_\_\_\_

Vessel Name \_\_\_\_\_ Load # \_\_\_\_\_

Begin load time \_\_\_\_\_ End load time \_\_\_\_\_

Begin dump time \_\_\_\_\_ End dump time \_\_\_\_\_

Sampling method \_\_\_\_\_

Condition of screening \_\_\_\_\_

Location where specimen recovered \_\_\_\_\_

Draghead deflector used? YES / NO Rigid deflector draghead? YES / NO

Condition of deflector \_\_\_\_\_

Weather conditions \_\_\_\_\_

Water temp: Surface \_\_\_\_\_ Below midwater (if known) \_\_\_\_\_

**Species Information:** (please designate cm/m or inches.)

Head width \_\_\_\_\_ Plastron length \_\_\_\_\_

Straight carapace length (or total length) \_\_\_\_\_

Straight carapace width \_\_\_\_\_

Curved carapace length \_\_\_\_\_

Curved carapace width \_\_\_\_\_

Condition of specimen/description of animal (please complete attached diagram) \_\_\_\_\_

Turtle Decomposed: NO SLIGHTLY MODERATELY SEVERELY

Turtle tagged: YES / NO Please record all tag numbers. Tag # \_\_\_\_\_

Photograph attached: YES / NO

(please label species, date, geographic site and vessel name on back of photograph)

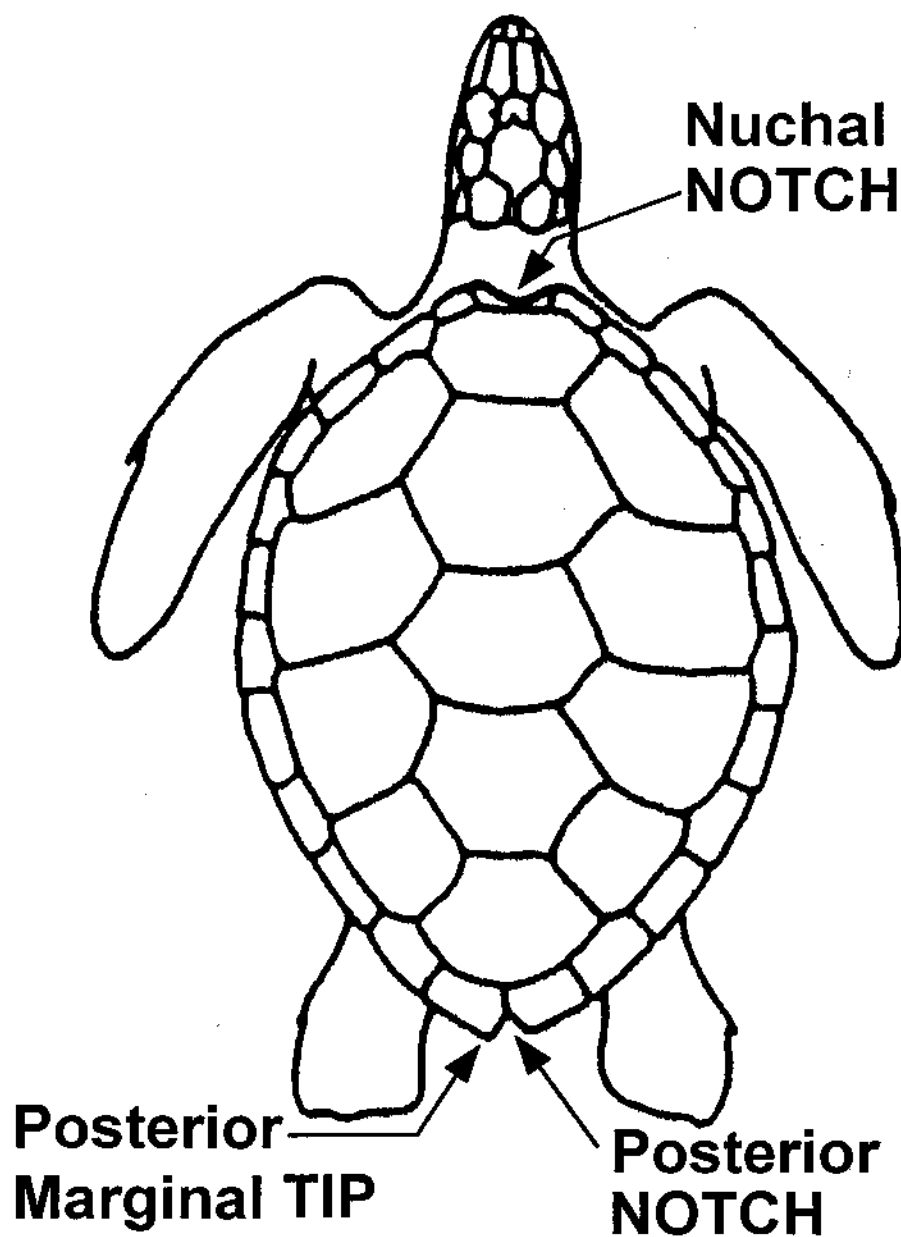
Comments/other (include justification on how species was identified)

Observer's Name \_\_\_\_\_

Observer's Signature \_\_\_\_\_

**Incident Report of Sea Turtle Take - Thimble Shoal and Atlantic Ocean  
Channels Project**

Draw wounds, abnormalities, tag locations on diagram and briefly  
describe below.



Description of animal:

## SECTION 01451

## CONTRACTOR QUALITY CONTROL

1/04

## PART 1 GENERAL

## 1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## AMERICAN SOCIETY FOR TESTING AND MATERIALS (ASTM)

ASTM D 3740 (1996) Minimum Requirements for Agencies Engaged in the Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction

ASTM E 329 (1995b) Agencies Engaged in the Testing and/or Inspection of Materials Used in Construction

## 1.2 PAYMENT

Separate payment will not be made for providing and maintaining an effective Quality Control program, and all costs associated therewith shall be included in the applicable unit prices or lump-sum prices contained in the Bidding Schedule.

## PART 2 PRODUCTS (NOT APPLICABLE)

## PART 3 EXECUTION

## 3.1 GENERAL REQUIREMENTS

The Contractor is responsible for quality control and shall establish and maintain an effective quality control system in compliance with the Contract Clause titled "Inspection of Construction." The quality control system shall consist of plans, procedures, and organization necessary to produce an end product that complies with the contract requirements. The system shall cover all construction operations, both onsite and offsite, and shall be keyed to the proposed construction sequence.

## 3.2 QUALITY CONTROL PLAN

## 3.2.1 General

Prior to start of the scheduled work operations, the Contractor shall furnish his CQC plan to the COR for acceptance. The CQC Plan the Contractor proposes to implement shall identify the personnel, procedures,

instructions, records, and forms, and, as a minimum, shall include:

- a. A description of the quality control organization, including a chart showing lines of authority by name with duties and responsibilities of their respective position, qualifications (in resume format), and acknowledgment that the CQC staff shall implement the three phase control system for all aspects of the work specified.
- b. The number, classifications, qualifications, duties, responsibilities and authorities of personnel. A copy of the letter, signed by an authorized official of the firm, which describes the responsibilities and delegates the sufficient authorities to adequately perform the functions of the CQC System Manager, including authority to stop work which is not in compliance with the contract. The CQC System Manager shall issue letters of direction to all other various quality control representatives outlining duties, authorities and responsibilities, and shall furnish copies to the Government at the same time.
- c. Control, verification and acceptance testing procedures for each specific test to include the test name, specification paragraph requiring test, feature of work to be tested, test frequency, and person or laboratory responsible for each test (laboratory facilities will be approved by the CO).
- d. Procedures for scheduling, reviewing, certifying, and managing submittals, including those of subcontractors, offsite fabricators, suppliers, and purchasing agents. These procedures shall be in accordance with Section 01330 SUBMITTAL PROCEDURES.
- e. Procedures for tracking preparatory, initial, and follow-up control phases and control, verification, and acceptance tests including documentation.
- f. Procedures for tracking construction deficiencies from identification through acceptable corrective action. These procedures shall establish verification that identified deficiencies have been corrected.
- g. Reporting procedures, including proposed reporting formats.
- h. A list of the definable features of work. A definable feature of work is a task which is separate and distinct from other tasks, has separate control requirements, and may be identified by different trades or disciplines, or it may be work by the same trade in a different environment. Although each section of the specifications may generally be considered as a definable feature of work, there are frequently more than one definable feature under a particular section. This list will be agreed upon during the coordination meeting.

### 3.2.2 Acceptance of Plan

Acceptance of the Contractor's plan is required prior to the start of construction. Acceptance is conditional and will be predicated on satisfactory performance during the construction. The Government reserves the right to require the Contractor to make changes in his CQC Plan and operations including removal of personnel, as necessary, to obtain the quality specified.

### 3.2.3 Notification of Changes

After acceptance of the CQC Plan, the Contractor shall notify the Contracting Officer in writing of any proposed change. Proposed changes are subject to acceptance by the Contracting Officer.

### 3.3 COORDINATION MEETING

As soon as practicable after receipt of Notice to Proceed (NTP) and before start of the scheduled work, and prior to acceptance by the Government of the CQC Plan, the Contractor shall meet with the Contracting Officer or Authorized Representative and discuss the Contractor's quality control system. The Contractor's Project Manager, Submittals Clerk and Quality Control Manager, Dredge Captain and Plant Operators, and the Surveyor or Engineer to be employed by the Contractor to perform all surveys and layout of the work required of the Contractor shall attend this meeting. The Contractor is encouraged to have an officer of his company and representation from any major subcontractors at the conference. The CQC Plan shall be submitted for review a minimum of 14 calendar days prior to the Coordination Meeting. During the meeting, a mutual understanding of the system details shall be developed, including the forms for recording the CQC operations, control activities, testing, administration of the system for both onsite and offsite work, and the interrelationship of Contractor's Management and control with the Government's Quality Assurance. Minutes of the meeting shall be prepared by the Government and signed by both the Contractor and the Contracting Officer. The minutes shall become a part of the contract file. There may be occasions when subsequent conferences will be called by either party to reconfirm mutual understandings, to address deficiencies in the CQC system, or clarify procedures which may require corrective action by the Contractor.

### 3.4 QUALITY CONTROL ORGANIZATION

#### 3.4.1 Personnel Requirements

The requirements for the CQC organization are a CQC System Manager and sufficient number of additional qualified personnel to ensure contract compliance. The Contractor shall provide a CQC organization that shall be at the site at all times during progress of the work and with complete authority to take any action necessary to ensure compliance with the contract. All CQC staff members shall be subject to interview and acceptance by the Contracting Officer or his designated representative.

#### 3.4.2 CQC System Manager

The Contractor shall identify as CQC System Manager an individual within

the onsite work organization who shall be responsible for overall management of CQC and have the authority to act in all CQC matters for the Contractor. The CQC System Manager will be held responsible for the quality of work on the job and is subject to removal by the Contracting Officer for non-compliance with quality requirements specified in the contract. The CQC System Manager shall be:

a. A graduate engineer, graduate architect, graduate of construction management, or an experienced construction management person with a minimum of five years experience in dredging work similar in magnitude and duration to this contract. This experience shall include work in environments with turtle and other listed species protection restrictions and compliance with environmental requirements in the Commonwealth of Virginia.

This CQC System Manager shall be on the site at all times during construction and shall be employed by the prime Contractor. The CQC System Manager shall be assigned as System Manager but may have duties as project superintendent in addition to quality control. An alternate for the CQC System Manager shall be identified in the plan to serve in the event of the System Manager's absence. The requirements for the alternate shall be the same as for the designated CQC System Manager.

#### 3.4.3 Additional Requirement

In addition, this experience shall include successful completion of Course entitled "Construction Quality Management for Contractors". The Contractor and his designated CQC staff shall have completed this training within 60 calendar days of receipt of his Notice To Proceed. This course is offered periodically by the Corps of Engineers. Specific times and locations are available from the Norfolk District, telephone (757) 441-7723.

#### 3.4.4 Organizational Changes

The Contractor shall maintain the CQC staff at full strength at all times. When it is necessary to make changes to the CQC staff, the Contractor shall revise the CQC Plan to reflect the changes and submit the changes to the Contracting Officer for acceptance.

#### 3.5 SUBMITTALS AND DELIVERABLES

Submittals, if needed, shall be made as specified in Section 01330 SUBMITTAL PROCEDURES. The CQC organization shall be responsible for certifying that all submittals and deliverables are in compliance with the contract requirements.

#### 3.6 CONTROL

Contractor Quality Control is the means by which the Contractor ensures that the construction, to include that of subcontractors and suppliers, complies with the requirements of the contract. At least three phases of control shall be conducted by the CQC System Manager for each definable feature of work as follows:

##### 3.6.1 Preparatory Phase

This phase shall be performed prior to beginning work on each definable feature of work, after all required plans/documents/materials are approved/accepted, and after copies are at the work site. This phase shall include:

- a. A review of the paragraphs of applicable specifications, reference codes, and standards. A copy of those sections of referenced codes and standards applicable to that portion of the work to be accomplished in the field shall be made available by the Contractor at the preparatory inspection. These copies shall be maintained in the field and available for use by Government personnel until final acceptance of the work.
- b. A review of the contract drawings.
- c. A check to assure that all materials and equipment have been tested, submitted, and approved.
- d. Review of provisions that have been made to provide required control inspection and testing.
- e. Examination of the work area to assure that all required preliminary work has been completed and is in compliance with the contract.
- f. A physical examination of required materials, equipment, and sample work to assure that they are on hand, conform to approved shop drawings or submitted data, and are properly stored.
- g. A review of the appropriate activity hazard analysis to assure safety requirements are met.
- h. Discussion of procedures for controlling quality of the work including repetitive deficiencies. Document construction tolerances and workmanship standards for that feature of work.
- i. A check to ensure that the portion of the plan for the work to be performed has been accepted by the Contracting Officer.
- j. Discussion of the initial control phase.
- k. The Government shall be notified at least 48 hours, excluding non-workdays, in advance of beginning the preparatory control phase. This phase shall include a meeting conducted by the CQC System Manager and attended by the superintendent, other CQC personnel (as applicable), and the foreman responsible for the definable feature. The results of the preparatory phase actions shall be documented by separate minutes prepared by the CQC System Manager and attached to the daily CQC report. The time and date of the preparatory phase meeting shall be coordinated with the Progress Schedule. The Contractor shall instruct applicable workers as to the acceptable level of workmanship required in order to meet contract specifications.

### 3.6.2 Initial Phase

This phase shall be accomplished at the beginning of each definable feature of work. The following shall be accomplished:

- a. A check of work to ensure that it is in full compliance with contract requirements. Review minutes of the preparatory meeting.
- b. Verify adequacy of controls to ensure full contract compliance. Verify required control inspection and testing.
- c. Establish level of workmanship and verify that it meets minimum acceptable workmanship standards. Compare with required sample panels as appropriate.
- d. Resolve all differences.
- e. Check safety to include compliance with and upgrading of the safety plan and activity hazard analysis. Review the activity analysis with each worker.
- f. The Government shall be notified at least 24 hours, excluding non-workdays, in advance of beginning the initial phase. Separate minutes of this phase shall be prepared by the CQC System Manager and attached to the daily CQC report. Exact location of initial phase shall be indicated for future reference and comparison with follow-up phases.
- g. The initial phase should be repeated for each new crew to work onsite, or any time acceptable specified quality standards are not being met.

### 3.6.3 Follow-up Phase

Daily checks shall be performed to assure control activities, including control testing, are providing continued compliance with contract requirements, until completion of the particular feature of work. The checks shall be made a matter of record in the CQC documentation. Final follow-up checks shall be conducted and all deficiencies corrected prior to the start of additional features of work which may be affected by the deficient work. The Contractor shall not build upon nor conceal non-conforming work.

### 3.6.4 Additional Preparatory and Initial Phases

Additional preparatory and initial phases shall be conducted on the same definable features of work if: the quality of on-going work is unacceptable; if there are changes in the applicable CQC staff, onsite production supervision or work crew; if work on a definable feature is resumed after a substantial period of inactivity; or if other problems develop.

## 3.7 TESTS



### 3.7.1 Testing Procedure

The Contractor shall perform specified or required tests to verify that control measures are adequate to provide a product which conforms to contract requirements. Upon request, the Contractor shall furnish to the Government duplicate samples of test specimens for possible testing by the Government. Testing includes operation and/or acceptance tests when specified. The Contractor shall procure the services of a Corps of Engineers approved testing laboratory or establish an approved testing laboratory at the project site. The Contractor shall perform the following activities and record and provide the following data:

- a. Verify that testing procedures comply with contract requirements.
- b. Verify that facilities and testing equipment are available and comply with testing standards.
- c. Check test instrument calibration data against certified standards.
- d. Verify that recording forms and test identification control number system, including all of the test documentation requirements, have been prepared.
- e. Results of all tests taken, both passing and failing tests, shall be recorded on the CQC report for the date taken. Specification paragraph reference, location where tests were taken, and the sequential control number identifying the test shall be given. If approved by the Contracting Officer, actual test reports may be submitted later with a reference to the test number and date taken. An information copy of tests performed by an offsite or commercial test facility shall be provided directly to the Contracting Officer. Failure to submit timely test reports as stated may result in nonpayment for related work performed and disapproval of the test facility for this contract.

### 3.7.2 Testing Laboratories

#### 3.7.2.1 Capability Check

The Government reserves the right to check laboratory equipment in the proposed laboratory for compliance with the standards set forth in the contract specifications and to check the laboratory technician's testing procedures and techniques. Laboratories utilized for testing soils, concrete, asphalt, and steel shall meet criteria detailed in ASTM D 3740 and ASTM E 329.

#### 3.7.2.2 Capability Recheck

If the selected laboratory fails the capability check, the Contractor will be assessed a charge to reimburse the Government for each succeeding recheck of the laboratory or the checking of a subsequently selected laboratory. Such costs will be deducted from the contract amount due the Contractor.

### 3.7.3 Onsite Laboratory

The Government reserves the right to utilize the Contractor's control testing laboratory and equipment to make assurance tests, and to check the Contractor's testing procedures, techniques, and test results at no additional cost to the Government.

### 3.8 DOCUMENTATION

The Contractor shall maintain current records providing factual evidence that required quality control activities and/or tests have been performed. These records shall include the work of subcontractors and suppliers and shall be on an acceptable form that includes, as a minimum, the following information:

- a. Contractor/subcontractor and their area of responsibility.
- b. Operating plant/equipment with hours worked, idle, or down for repair.
- c. Work performed each day, giving location, description, and by whom. When Network Analysis (NAS) is used, identify each phase of work performed each day by NAS activity number.
- d. Test and/or control activities performed with results and references to specifications/drawings requirements. The control phase shall be identified (Preparatory, Initial, Follow-up). List of deficiencies noted, along with corrective action.
- e. Quantity of materials received at the site with statement as to acceptability, storage, and reference to specifications/drawings requirements.
- f. Offsite surveillance activities, including actions taken.
- g. Job safety evaluations stating what was checked, results, and instructions or corrective actions.
- h. Instructions given/received and conflicts in plans and/or specifications.
- i. Contractor's verification statement.

These records shall indicate a description of trades working on the project; the number of personnel working; weather conditions encountered; and any delays encountered. These records shall cover both conforming and deficient features and shall include a statement that equipment and materials incorporated in the work and workmanship comply with the contract. The original and one copy of these records in report form shall be furnished to the Government daily within 24 hours after the date covered by the report. All calendar days shall be accounted for throughout the life of the contract. The first report following a day of no work shall be for that day only. Reports shall be signed and dated by the CQC System

Manager. The report from the CQC System Manager shall include copies of test reports and copies of reports prepared by all subordinate quality control personnel.

### 3.9 SAMPLE FORMS

Sample forms for recording of Preparatory and Initial Phase Inspections, Contractor Quality Control Reports and Report of Operations - Dredges are included at the end of this SECTION. The Contractor shall utilize these forms as a guide only in the planning and scheduling of his work; however, the actual CQC requirements as specified in this SECTION will be fully implemented by the Government at the Pre-Construction Conference.

### 3.10 NOTIFICATION OF NONCOMPLIANCE

The Contracting Officer will notify the Contractor of any detected noncompliance with the foregoing requirements. The Contractor shall take immediate corrective action after receipt of such notice. Such notice, when delivered to the Contractor at the work site, shall be deemed sufficient for the purpose of notification. If the Contractor fails or refuses to comply promptly, the Contracting Officer may issue an order stopping all or part of the work until satisfactory corrective action has been taken. No part of the time lost due to such stop orders shall be made the subject of claim for extension of time or for excess costs or damages by the Contractor.

-- End of Section --

# **SAMPLE FORM**

## **PREPARATORY PHASE CHECKLIST**

PREPARATORY PHASE CHECKLIST

Date Preparatory Held: \_\_\_\_\_

Contract No.: \_\_\_\_\_

Spec. Section & Paragraph \_\_\_\_\_

Title: \_\_\_\_\_

Drawing Sheet Numbers \_\_\_\_\_

MAJOR DEFINABLE FEATURE OF WORK: \_\_\_\_\_

A. PERSONNEL PRESENT:

<u>NAME</u>	<u>POSITION</u>	<u>COMPANY</u>
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____
5) _____	_____	_____
6) _____	_____	_____
7) _____	_____	_____
8) _____	_____	_____
9) _____	_____	_____
10) _____	_____	_____

(List additional personnel on reverse side)

B. Has each specification paragraph, drawing, and permit requirement been studied: YES\_\_\_ NO\_\_\_

C. TRANSMITTALS INVOLVED:

<u>NUMBER &amp; ITEM</u>	<u>CODE</u>	<u>CONTRACTOR OR GOVERNMENT APPROVAL</u>
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____
5) _____	_____	_____
6) _____	_____	_____

C(1). Have all items involved been approved? YES\_\_\_\_\_ NO\_\_\_\_\_

If NO, list items: \_\_\_\_\_  
\_\_\_\_\_

D. ARE ALL MATERIALS ON HAND? YES\_\_\_\_\_ NO\_\_\_\_\_

Have all materials been checked for contract compliance against  
approved shop drawings? YES\_\_\_\_\_ NO\_\_\_\_\_

D(1). Items not on hand or not in accordance with transmittals:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_

E. TESTS REQUIRED IN ACCORDANCE WITH CONTRACT REQUIREMENTS:

<u>TEST</u>	<u>PARAGRAPH</u>
1) _____	_____
2) _____	_____
3) _____	_____
4) _____	_____

F. ACCIDENT PREVENTION PREPLANNING - HAZARD CONTROL MEASURES:

F(1). Applicable Outlines (Attach complete copies):

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_
- 4) \_\_\_\_\_
- 5) \_\_\_\_\_
- 6) \_\_\_\_\_
- 7) \_\_\_\_\_
- 8) \_\_\_\_\_

F(2). Operational Equipment and Operator Checklists:

FOR EQUIPMENT:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

FOR OPERATOR:

- 1) \_\_\_\_\_
- 2) \_\_\_\_\_
- 3) \_\_\_\_\_

G. HAVE PROCEDURES FOR ACCOMPLISHING WORK BEEN REVIEWED WITH  
APPROPRIATE PEOPLE: YES \_\_\_\_\_ NO \_\_\_\_\_

H. HAS ALL PRELIMINARY WORK BEEN ACCOMPLISHED IN ACCORDANCE WITH  
CONTRACT REQUIREMENTS AND IS THIS FEATURE OF WORK READY TO START:  
YES \_\_\_\_\_ NO \_\_\_\_\_

H(1). Explain any problems: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
QUALITY CONTROL REPRESENTATIVE

# **SAMPLE FORM**

## **INITIAL PHASE CHECKLIST**



INITIAL PHASE CHECKLIST

Contract No.: \_\_\_\_\_ Date: \_\_\_\_\_

Spec. Section & Paragraph \_\_\_\_\_

Description and Location of Work Inspected: \_\_\_\_\_

\_\_\_\_\_

REFERENCE CONTRACT DRAWINGS: \_\_\_\_\_

A. PERSONNEL PRESENT:

<u>NAME</u>	<u>POSITION</u>	<u>COMPANY</u>
1) _____	_____	_____
2) _____	_____	_____
3) _____	_____	_____
4) _____	_____	_____
5) _____	_____	_____
6) _____	_____	_____

B. MATERIALS AND EQUIPMENT BEING USED ARE IN STRICT COMPLIANCE WITH THE CONTRACT: YES \_\_\_\_\_ NO \_\_\_\_\_

If NO, Explain: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

C. WORKMANSHIP IS ACCEPTABLE: YES \_\_\_\_\_ NO \_\_\_\_\_ STATE AREAS WHERE IMPROVEMENT IS NEEDED: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D. SAFETY VIOLATIONS AND CORRECTION ACTION TAKEN: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
QUALITY CONTROL REPRESENTATIVE

# **SAMPLE FORM**

## **CONTRACTOR QUALITY CONTROL REPORT**

<b>CONTRACTOR QUALITY CONTROL REPORT</b>				REPORT NO.			
				DATE			
PROJECT/CONTRACT NUMBER				SUPERINTENDENT			
CONTRACTOR				WEATHER			
PRECIPITATION PAST 24 HOURS(inches) :				TEMPERATURE (F): MINIMUM		MAXIMUM	
WERE THER ANY DELAYS IN WORK PROGRESS TODAY? NO___ YES___ If YES, Explain:							
VERBAL INSTRUCTIONS GIVEN BY THE GOVERNMENT:							
HAS ANYTHING DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM? NO___ YES___ If YES, Explain:							
NOTE: Official notification of claim must be made to the Contracting Officer by separate correspondence.							
SAFETY INSPECTION/MEETINGS: Indicate inspections made, items inspected, deficiencies noted and corrective action taken.							
WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? NO___ YES___ If YES, attach accident report.							
PRIME CONTRACTOR/SUBCONTRACTOR WORKFORCE (If space provided below is inadequate, use additional sheets)							
No.	TRADE	HOURS	EMPLOYER	No.	TRADE	HOURS	EMPLOYER
CUMULATIVE TOTAL HOURS OF WORK				TOTAL WORK HOURS ON JOB SITE THIS DATE			
HOURS FROM PREVIOUS REPORT				TOTAL WORK HOURS FROM START OF CONSTRUCTION			
MAJOR ITEMS OF EQUIPMENT							
TYPE/CAPACITY				No.	STANDBY HOURS		OPERATING HOURS

THREE PHASE INSPECTION		
ADVANCE NOTICE OF PREPARATORY, INITIAL OR FINAL FOLLOW-UP INSPECTION: (Minimum five working days notice required)		
PREPARATORY INSPECTION HELD TODAY: Indicate <u>Definable Features of Work</u> . Attach Preparatory Checklist.		
INITIAL INSPECTION HELD TODAY: Indicate <u>Definable Features of Work</u> . Attach Initial Checklist.		
FINAL FOLLOW-UP INSPECTION HELD TODAY: Indicate <u>NAS Activity</u> Number. Attach Final Follow-up Checklist.		
ACTIVITIES IN PROGRESS: Attach daily CQC follow-up inspection deficiencies/corrections noted.		
ACTIVITY NUMBER	S=START C=CONTINUING F=FINISH	DESCRIPTION OF WORK ACTUALLY PERFORMED/MAJOR MATERIAL DELIVERIES TODAY
CQC TESTING		
ACTIVITY NUMBER	DESCRIPTION OF TESTS PERFORMED	PASSED/FAILED
USER SCHOOLING CONDUCTED		
ACTIVITY NUMBER	DESCRIPTION OF SCHOOLING	
INSTALLED PROPERTY PRICING DATA ATTACHED: YES ____ NO ____		
TRANSFERRED PROPERTY, DD-1149 ATTACHED: YES ____ NO ____		
QA COMMENTS CORRECTED TODAY: YES ____ NO ____		
EQUIPMENT SAFETY CHECKLIST ATTACHED: YES ____ NO ____		
GENERAL COMMENTS:		
CONTRACTOR CERTIFICATION:		
On behalf of the contractor, I certify that this report is complete and correct and all equipment and material used and work performed during this reporting period are in compliance with the contract plans and specifications, to the best of my knowledge, except as noted above.		
Authorized Contractor Representative: _____		
Report Date: _____ Date submitted to Government Representative: _____		

# **SAMPLE FORM**

## **REPORT OF OPERATIONS DREDGES (ENG FORM 4267)**

DAILY REPORT OF OPERATIONS - DREDGES													
THRU:				TO:				FROM:				REPORT NO.	
CHARACTER		<div><input type="checkbox"/> MAINTENANCE    <input type="checkbox"/> NEW WORK    <input type="checkbox"/> DAILY    <input type="checkbox"/> STATUS    <input type="checkbox"/> COMPLETION    <input type="checkbox"/> ANNUAL</div>								DATE OR PERIOD			
DREDGE		NAME AND TYPE				SIZE		PIPELINE		DIPPER OR BUCKET			
		HORSEPOWER OF		DREDGE PUMP		SUCTION PIPE JET		CUTTER OR BUCKET		PROPULSION			
		NUMBER OF CREWMEMBERS		DREDGE	SHORE	OTHER PLANT	TOTAL	WORK SCHEDULE	SHIFTS PER DAY	DAYS PER WEEK			
PROJECT AND BAR		NAME				AUTH DIMENSIONS		WIDTH		DEPTH		OVERDEPTH	
		LOCATION (include station numbers)											
CHARACTER OF MATERIAL		ABSOLUTE DENSITY				IN PLACE DENSITY				VOIDS RATIO			
		GRAIN SIZE				GMS/Liter				GEOLOGICAL CLASSIFICATION			
CONTRACT OR DREDGING ORDER		NUMBER				<div><input type="checkbox"/> CONTRACTOR    <input type="checkbox"/> HIRED LABOR</div>				TOTAL NO. OF DAYS IN WHICH WORK WAS DONE			
CHANNEL CONDITION		AVERAGE DEPTH	BEFORE DREDGING		AFTER DREDGING		MINIMUM SOUNDING	BEFORE DREDGING		AFTER DREDGING			
RIVER STAGE		MINIMUM		TIME		MAXIMUM		TIME		GAGE LOCATION			
WEATHER CONDITION		(clear, cloudy, rain, snow, and fog)					VISIBILITY		WIND (maximum velocity & direction)				
							miles						
WORK PERFORMED						DISTRIBUTION OF TIME							
ITEM			UNIT	QUANTITY		EFFECTIVE WORKING TIME			HOURS	MIN.			
						(chargeable to cost of work)							
AVERAGE WIDTH OF CUT			FEET			PUMPING OR DREDGING							
TOTAL ADVANCE THIS PERIOD			FEET			PCT. OF EFFECTIVE RENTAL TIME							
TOTAL ADV. PREVIOUS TO THIS			FEET			BOOSTER (in line) Hrs.							
TOTAL ADVANCE TO DATE			FEET			NON-EFFECTIVE WORKING TIME							
FLOATING PIPE:          SHORE PIPE:					(chargeable to cost of work)								
TOTAL LENGTH OF DISCHARGE PIPE			FEET			HANDLING PIPE LINES							
AVERAGE LIFT			FEET			HANDLING ANCHOR LINES							
AVERAGE PUMP SPEED			R.P.M.			CLEARING PUMP AND PIPE LINE							
AVG. DREDGED PER PUMP. HR,			CU.YDS.			CLEARING CUTTER OR SUCTION HEAD							
SCOWS LOADED			NUMBER			WAITING FOR SCOWS							
AVERAGE LOAD PER SCOW			CU. YDS.			TO AND FROM WHARF OR ANCHORAGE							
CUBIC YARDS REMOVED						CHANGING LOCATION OF PLANT ON JOB							
AMOUNT DREDGED THIS PERIOD:						LOSS DUE TO OPPOSING NATURAL ELEMENTS							
(1) GROSS (computed amount)						LOSS DUE TO PASSING VESSELS							
(2) CREDITED (pay place)						SHORE LINE AND SHORE WORK							
AMOUNT PREVIOUSLY REPORTED:						WAITING FOR BOOSTER							
(1) GROSS (computed amount)						MINOR OPER. REPAIRS (explain in remarks)							
(2) CREDITED (pay place)						WAITING FOR ATTENDANT PLANT							
TOTAL AMOUNT DREDGED TO DATE:						PREPERATION AND MAKING UP TOW							
(1) GROSS (computed amount)						TRANSFERRING PLANT BETWEEN WORKS							
(2) CREDITED (pay place)						LAY TIME OFF SHIFT AND SATURDAYS							
ATTENDANT PLANT						SUNDAYS AND HOLIDAYS							
ITEM	NAME OR NUMBER			HOURS		FIRE DRILL							
						MISCELLANEOUS (explain in remarks)							
						TOTAL NON-EFFECTIVE WORKING TIME							
						PCT. OF NON-EFFECTIVE RENTAL TIME							
						TOTAL EFFECTIVE AND NON-EFFECTIVE TIME							
						(chargeable to cost of work)							
						PCT. OF TOTAL TIME IN PERIOD							
						LOST TIME							
						(not chargeable to cost of work)							
						MAJOR REPAIRS AND ALTERATIONS							
						CESSATION							
						COLLISIONS							
						MISCELLANEOUS (explain in remarks)							
NUMBER OF INSPECTIONS	BY DISTRICT PERSONNEL		BY PERSONNEL			TOTAL LOST TIME							
						PERCENTAGE OF TOTAL TIME							
CONTRACT USE ONLY	HAS ANYTHING DEVELOPED WHICH MIGHT LEAD TO A CHANGE ORDER OR CLAIM? (If "YES", explain under remarks on back) <div><input type="checkbox"/> NO    <input type="checkbox"/> YES</div>					TOTAL TIME IN PERIOD							

SUMMARY OF COSTS						
ITEMS					COST	
<div>DIRECT PLANT OPERATING COSTS</div> <div>UNIFORM DAILY RATE BASIS <i>(To be completed when submitting Status and Completion reports.)</i></div> <div>CHARGES: _____ DAYS AT _____ PER DAY <i>(Item 19, ENG Form 22 (Costs)-adjusted to exclude plant increment cost.)</i> ► OR ◀</div> <div>ACTUAL PLANT COSTS <i>(To be completed when submiting Annual report.)</i></div> <div>PAYROLLS <i>(gross)</i>.....</div> <div>SUBSISTENCE &amp; QUARTERS OR PER DIEM &amp; MILEAGE.....</div> <div>FUEL _____ BARRELS AT _____ PER BARREL.....</div> <div>WATER.....</div> <div>LUBRICANTS.....</div> <div>PLANT OWNERSHIP COSTS <i>(as computed below)</i>.....</div> <div>INSURANCE.....</div> <div>ATTENDANT PLANT.....</div> <div>MISCELLANEOUS.....</div> <div>SUBTOTAL - UNIFORM DAILY RATE OR ACTUAL</div>						
<div>SHORE WORK</div> <div>SUBTOTAL- SHORE WORK COSTS.....</div>						
<div>OTHER COSTS</div> <div>SURVEYS.....</div> <div>INSPECTION AND SUPERVISION.....</div> <div>OVERHEAD.....</div> <div>OTHER INDIRECT COSTS.....</div> <div>SUBTOTAL - OTHER COSTS.....</div> <div>SUBTOTAL OTHER UNIT COST _____ PER CUBIC YARD.</div>						
<div>GRAND TOTAL - ALL COSTS.....</div>						
OPERATING SUPPLIES				ANNUAL REPORT DATA <i>(complete when submitting Annual report.)</i>		
COMMODITIES	CONSUMED		INVENTORY		COST PER RENTAL MINUTE <i>(Based on total operating cost)</i> .....	per min.
	UNIT	QUANTITY	QUANTITY	VALUE		
FUEL <i>(oil)</i>	BBLs				TOTAL COST OF PLANT <i>(End of F.Y. reporting period)</i> .....	
LUBRICANT <i>(oil)</i>	GAL				BOOK VAULE <i>(End of F.Y. reporting period)</i> .....	
LUBRICANT <i>(grease)</i>	LBS				BALANCE IN PLANT ACCOUNT <i>(End of F.Y. reporting period)</i> .....	
WATER	GAL				PLANT OWNERSHIP COSTS <i>(Actual for F.Y. reporting period):</i>	
					DEPRECIATION.....	
					REPAIRS <i>(Adjusted)</i> .....	
					CESSATION OF WORK.....	
					SMALL TOOLS, ETC. ....	
SUBSISTENCE SUPPLIES.....					TOTAL.....	
MISCELLANEOUS SUPPLIES.....						
TOTAL.....						
REMARKS						
SUBMITTED BY <i>(Name, title, and signature)</i>			RECOMMENDED BY <i>(Name, title, and signature)</i>		APPROVED BY <i>(Name, title, and signature)</i>	

## SECTION 02881

DREDGING  
01/04

## PART 1 GENERAL

## 1.1 References

The publications listed below form a part of this specification to the extent referenced. The publications are referred to in the text by basic designation only.

## ENGINEERING MANUALS

EM 385-1-1 (2003) Safety and Health Requirements  
Manual

## 1.2 PLANT

Plant and equipment employed on the dredging work shall be in satisfactory operating condition, capable of safely and efficiently performing the work as indicated or specified, and shall be subject to inspection and approval by the Government at all times. Equipment and machinery, including dredges and supporting plant, shall be subject to inspection and approval by the Government and kept in good condition at all times. A complete listing of all dredging plant and machinery to be used in the work, including skiffs, barges, and other related equipment, shall be submitted. The listing shall include year and manufacturer, operational capacities, safety features, operating and licensing requirements for operators, and a description where and how the item of equipment or plant will be employed in the work. Any leaks or deficiencies shall be promptly and properly repaired. No reduction in the capacity of the plant, once inspected and approved by the Government to be sufficient for employment on the work, shall be made except by written permission of the Contracting Officer. The measure of the "capacity of Plant" shall be its actual performance on the work to which these specifications apply. The Contractor shall not remove any plant from this job until all scheduled work is completed and accepted by the Government, unless first approved in writing by the Contracting Officer. The Contractor shall submit, as a part of the Work Plan and Quality Control Plan, the manufacturer's pump curve for each pump to be used during the project. This submittal shall be provided by the Contractor for the purpose of verifying his available plant capacity is sufficient to accomplish the scheduled work in accordance with all contract requirements. The submittal shall include the dredge's main pump, and if applicable, the ladder pump and any booster pump(s) to be used on the contract. If a substitution of equipment occurs during the contract, the pump curve of the new pump(s) shall be submitted at the time of substitution and recorded in the Daily Report of Operations. Each pump curve submitted shall be clearly designated with the dredge name, contract number, pump function (main pump, ladder pump, or booster pumps) and pump size. The pump curves shall indicate each respective pump's performance (i.e., pump Hp, efficiency and rpm's) for



water plotted against hydraulic head and discharge velocity and GPM's. All data provided must be accompanied with documentation verifying the pumps to be utilized in this work have provided this efficiency on previous work in conditions and for material to be removed similar to that to be accomplished for this contract. All floating plant and equipment used as access ways or working platforms shall be equipped with walkways and guardrails conforming to Corps of Engineers Manual EM 385-1-1 and meet OSHA requirements for worker safety.

### 1.3 CHARACTER OF MATERIALS

The material to be removed is the shoaling that has occurred since the Channel and Basin were last dredged. Bidders are expected to examine the site of work and decide for themselves the character of the materials. The records of previous dredging are available in the Operations Branch at the Norfolk District. The Government does not warrant the accuracy of the records of previous dredging. Local minor variations in the subsurface materials are to be expected and, if encountered, will not be considered as being materially different within the purview of Contract Clause "DIFFERING SITE CONDITIONS". The records of previous dredging are available in the Operations Branch, Norfolk District, Corps of Engineers, 803 Front Street, Norfolk, Virginia 23510-1096.

### 1.4 SUBMITTALS

Submit the following in accordance with Section 01330, "Submittal Procedures":

#### SD-01 Preconstruction and Postconstruction Submittals

##### Dredging and Dredged Material Placement Plan; G

Prior to commencement of dredging, submit a plan for sequence of dredging, dredging methods and plant utilized, protection of structures, equipment, and land features. The Contractor's Dredging and Dredged Material Placement Plan shall clearly define the coordination of the dredging and dredged material placement and the protection measures proposed for minimizing of turtle takes and other encounters with endangered and protected species.

##### Notice to Mariners

Submit a copy of Notice to Mariners at same time sent to Fifth Coast Guard District.

#### SD-07 Certificates

##### Equipment and Machinery Operator Authorization

The Contractor shall submit a list of designated personnel qualified and authorized to operate machinery and equipment. The list shall be maintained at the job site in a current status at all times.

### 1.5 Obstruction Identification

There are not any known cables, pipes, bridges, or tunnels that cross the areas to be dredged. Investigations of the dredging area have been performed by Side Scan Sonar and targets have been identified to be in the vicinity of the dredging area; however, these items are not anticipated to be within the dredging prism. The last known x-y coordinate locations for these targets are provided in SECTION 01057. If the Contractor encounters any targets within the dredging prism, the target(s) shall be identified by the Contractor and the Contracting Officer immediately notified of the findings. Where appropriate by reason of discovery of such target(s) in the dredging prism, the Contracting Officer may order removal or relocation of the target(s), including delays in the time of performance or changes in the work, or both. If such delays or changes are ordered, an equitable adjustment will be made in accordance with the applicable CONTRACT CLAUSES of the contract.

## PART 2 PRODUCTS (NOT USED)

## PART 3 EXECUTION

### 3.1 REMOVAL AND DISPOSAL OF DREDGED MATERIAL

#### 3.1.1 HOPPER DREDGE REQUIREMENTS

Material dredged shall be transported and deposited within the Dam Neck Ocean Dredged Material Site as indicated. All material dredged upstream of Station 1002+00 shall be deposited into Cells 2 and 5. All material dredged downstream of Station 1002+00 shall be deposited into Cell 1. The Contractor shall deposit the dredged material near the center of each Cell used as practical and assure that the continuing placement procedures are performed in a manner such that placement of material is advanced to uniformly place and evenly spread the dredged material throughout the designated Cells. Once deposited the dredged material shall not form mounds above a depth of 35 feet below mean lower low water. The Contractor shall use the approved dredge positioning system to assure accurate placement of dredged material in the placement area as indicated. Each hopper dredge shall be equipped with necessary equipment, including shore stations if required, to produce a computer-generated graphic plot to an appropriate scale of the vessel's geographic position at all times the vessel is working under the contract. Limits of dredging and placement areas shall be shown on each plot. The date and time shall be printed automatically on the plot at close enough intervals to interpolate the dredge's position at any time. Travel between the dredging and placement areas may be shown to a different scale or in a different mode than in the dredging areas. The type of operation (dumping, travel, or other) shall be shown. Each load shall be numbered serially and the respective serial number recorded in the Daily Report with time, date, and x- and y- coordinate location where placed. The Contractor's equipment shall include a depth measuring capability for the drag arm or cutter head that interfaces with the positioning equipment as specified above. This depth measuring indicator shall measure the depth of the drag arm or cutter head at all times during dredging and transport. Flagging or marking of the winch cables is not an acceptable option to fulfill this requirement. The depth measuring indicator shall be in plain

view of drag tenders, Contractor quality control representatives, and Government inspectors. The results from constant measurement of the drag arm or cutter head depth indicator shall be produced in the computer-generated graphic plot as specified above and certified by the Contractor's CQC prior to including in the Daily Report of Operations for submittal to the Contracting Officer. The Contracting Officer may verify or have the Contractor's personnel verify the automatically plotted data using normal piloting and navigation methods at any time. Any discrepancies shall be evaluated and corrected at once.

#### 3.1.2 Load Measuring and Recording

Dredged material removed shall be measured and recorded automatically by the weight of dredged material in the bin, based on vessel displacement. If the measurement equipment includes a capability for automatic conversion from weight measurement to volume measure, the conversion factors, method, and meters or other devices shall be subject to approval of the Contracting Officer. The Contracting Officer may perform bin surveys for comparison with the load meter measurements furnished by the Contractor.

#### 3.1.3 Temporary Malfunctions

Should the vessel displacement load measurement, or position plotting equipment become inoperable, the Contractor shall stop all work until repairs are made.

#### 3.1.4 Warning Signs

The Contractor shall erect and maintain at his own expense suitable navigation warning signs at any points necessary to prevent hazards to navigation.

#### 3.1.5 Examination of Dredge Hopper Bins

The hopper bins shall be examined and determined to be in good condition to reasonably expect them to last throughout the job without wearing to the extent of allowing leaks. In the event that leaks occur anywhere in the hopper bins, the Contractor will be required to immediately discontinue using the respective equipment until the leaks are stopped. The Contractor shall also be required to recover at no cost to the Government any material improperly placed because of a leak or leaks in the equipment.

### 3.2 QUALITY CONTROL

The Contractor shall establish and maintain a quality control system for all dredging operations to assure compliance with contract requirements and record his inspections and tests under this system.

#### 3.2.1 Inspections and Testing Requirements

Inspections and testing shall be the responsibility of the Contractor, subject to the approval of the Contracting Officer.

#### 3.2.2 Equipment and Machinery Requirements

All measuring equipment, global positioning systems (GPS) and other electronic positioning systems, data plotting and recording equipment, and the procedures associated with each respective item of equipment, shall be subject to the approval of the Contracting Officer. Verification of current calibration for each respective item of equipment, as approved by the Contracting Officer, shall be provided by the Contractor prior to use of the equipment on the work. All records produced by the equipment shall be inspected and certified as complete by the Contractor's Quality Control Representative and included as a part of the Daily Quality Control Report.

### 3.2.3 Miscellaneous Inspections and Test Records

A copy of the records of all inspections and tests, as well as record of corrective action taken, shall be included in the Control Plan and furnished to the Contracting Officer as a part of the Daily Quality Control Report. The Contractor shall establish and maintain quality control for the shoreline work and all other operations in connection with the work in the field to assure compliance with contract requirements. The Contractor shall inspect for compliance with contract requirements and record the inspection of all operations including but not limited to the following:

- a. The material is placed within the Dam Neck Ocean Dredged Material Site to the lines, grade, and tolerances specified.
- b. All equipment used in the work is approved and in satisfactory working condition.
- c. Checks to insure safe work practices around turtles and other endangered and protected species, structures and the public is performed as specified.
- d. Insure all equipment and construction materials have been removed from completed work segments.

All results of inspections shall be documented with narrative explanations and photographs as necessary to document the conditions of field quality. The results and supporting data shall be recorded and provided by the Contractor in the Daily Report of Operations.

### 3.2.4 Reporting and Certificates

All measuring, plotting, and recording equipment and procedures shall be subject to the approval of the Contracting Officer. Verification of their calibration, certified by the Contractor's Quality Control Representative, shall be furnished prior to use on the work. All records produced by the equipment shall be authenticated by the authorized representative of the contractor and then provided to the Contracting Officer with the Daily Report of Operations.

### 3.3 DAILY REPORTING REQUIREMENT

The Contractor shall prepare and maintain a Daily Report of Operations and furnish copies daily to the Contracting Officer. A copy of the form

prescribed for recording the required information and any further instructions on the preparation of the report will be furnished at the preconstruction conference noted in Section 01005. The Contractor shall also furnish the following item daily to the Contracting Officer during dredging operations:

- (1) Copy of dredge leverman's log
- (2) Records of dredge pump vacuum and pressure gauge readings
- (3) Records of dredge load meter readings

### 3.4 REQUIRED DREDGING PRISM, OVERDEPTH, AND SIDE SLOPES

#### 3.4.1 Required Dredging Prism

Within the specific areas indicated to be dredged or areas approved by the Contracting Officer, the required dredging prism is defined by the required depths and applicable side slopes as indicated and specified. The actual quantity within the required dredging prism will be computed from the last surveys made before dredging.

#### 3.4.2 Overdepth

To cover inaccuracies of the dredging process, material actually removed from within the specific areas to be dredged to a depth of not more than one foot below the required depth will be estimated and paid for at the contract price.

#### 3.4.3 Side Slopes

Material actually removed, within limits approved by the Contracting Officer, to provide for final side slopes not flatter than 1 vertical on 3 horizontal, but not in excess of the amount originally lying above this limiting side slope, will be estimated and paid for, whether dredged in original position or by dredging space below the pay slope plane at the bottom of the slope for upslope material capable of falling into the cut. In computing the limiting amount of side-slope dredging an overdepth of one foot measured vertically will be used.

#### 3.4.4 Method of Obtaining Soundings

Soundings to determine the volume of material removed under this contract will be made with an Innerspace Technology, Inc. Model 448 Thermal Depth Sounder Recorder with an operating frequency of 208 kilohertz and a 3 degree beamwidth at -3db. The equipment will be calibrated by the bar/ball check or velocity probe method to compensate for variations of the velocity of sound in water.

#### 3.4.5 Basis of Surveys

The Government hydrographic surveys shall be the sole basis for determining payment for dredging and final acceptance.

#### 3.4.6 Placement Area Surveys

The Contractor shall conduct an after dredging placement area survey of the Dam Neck Ocean Dredged Material Disposal Site to ensure compliance with the elevation limitations as specified. The after dredge placement area survey shall be conducted over areas affected by the Contractor's material placement operations and be similar in format and detail to the contract drawings of the placement area, to include the size, scale, vertical datum, horizontal coordinates, sounding intervals, distance between survey sounding lines, and other details. The Contractor's licensed Professional Engineer or Surveyor currently licensed in the Commonwealth of Virginia shall submit these placement area survey records to the Contracting Officer for review and approval as a part of his final quality control verifications.

-- End of Section --